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THE EVOLUTION

OF

DECORATIVE ART

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DECORATIVE ART

AN ESSAY UPON ITS ORIGIN AND DEVELOPMENT
AS ILLUSTRATED BY THE ART OF
MODERN RACES OF MANKIND

BY

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PREFACE

IN presenting this short and, as I am well aware, imperfect essay to the public, I feel that it is necessary to say a few words in justification of my action. Although, for a proper comprehension of the growth of Art, it is necessary that its evolution should be studied from its very simplest beginning, this aspect of the subject has hardly been touched upon by writers of so-called 'Histories of Art.' In these, frequently very excellent works, the history of art is traced back perhaps to Assyrian and Ancient Egyptian civilisations, and a few writers dwell briefly upon the characteristics of modern Savage Art. Few of them, however, offer any study of the Art of the more primitive of the living races of mankind, with a view to explaining, by a process of reasoning from the known to the unknown, the first efforts of Primæval Man to produce objects which should be pleasing to the eye, and gratify his growing æsthetic feelings.

The Art of Design must, we know, have had a continuous history, and have grown up gradually from simple beginnings, at first by easy stages, involving but slight intellectual efforts, steadily progressing until it has become an essential element in our surroundings, absorbing a vast amount of complex reasoning, the result of the accumulation and combination of simple ideas, which are the outcome of experience during countless ages.

George Harris, in his *Theory of the Arts*, published in 1869, undoubtedly sounds the key-note to this subject, without however bringing many tangible examples to bear upon his theories.

It is to General Pitt Rivers without doubt that we owe the stimulus which has of recent years led many workers to investigate the gradual development of the various Arts of mankind, and to endeavour to trace their histories back to their absolute origins. The illustration of the gradual growth of Decorative Art from simple beginnings was a part of his scheme for establishing *series* of objects with a view to tracing the stages in the evolution of all the material arts of mankind. With this object in view he accumulated

material and formed series to illustrate the origin, growth step by step, and variations of certain patterns, and these series form some of the most interesting and striking features in his collection. Amongst many others one may mention the series illustrating the 'varieties and geographical distribution of the Loop Coil;' series showing the gradual degradation of designs representing the human form and their conversion into meaningless ornament, illustrating the importance of successive copying as a factor in the evolution of patterns; those showing the derivation of patterns on gourds and pottery from the strings by which once the vessels were carried. These and others such are too well known to require description. It is much to be regretted that with the exception of valuable remarks embodied in essays upon wider subjects, 1 and a few descriptions of the development of special patterns, we have not the benefit of his

^{1 &#}x27;Principles of Classification,' Journ. Anthropological Inst. vol. iv. p. 293; Report on Anthropology at the Brit. Association, 1872, ib. ii. p. 350; Catalogue of the Anthropological Collection of Colonel Lane Fox (Gen. Pitt Rivers); 'Evolution of Culture,' Proc. Royal Institution, vii. pt. 6; 'Address delivered at the Dorchester School of Art,' Feb. 1884, printed in the Dorchester County Chronicle, Feb. 7. 1884. John Colliers's Primer of Art also embodies the views of General Pitt Rivers on the development of the art of design.

researches into the history of Decorative Art in a published form. Among the earlier researches into the history of patterns should be mentioned Dr. John Evans's striking series of British coins, upon which, in the course of successive reproductions the once realistic design becomes hopelessly conventional (Proc. Royal Inst. vii. p. 475). Since the arrival of General Pitt Rivers's Collection in Oxford, as a gift to the University, I have constantly endeavoured to collect fresh material and facts, with a view to the further development of the subject. According to the general law laid down by him, and from the evidence now accumulated, there seem to me to be deducible certain general conclusions regarding the earlier history of Art, shedding light upon the first efforts of Prehistoric man in the Art of Design and Decoration, and also explaining the gradual formation and raison d'être of various forms of ornament which are familiar to us. These conclusions I have endeavoured very briefly to set down in a more or less connected form in this essay. Whole chapters might easily be written upon the history and variations of single designs or patterns, but this is not my object in this little book; but rather it is to interest if possible the 'general reader' in a subject which will repay further investigation, the material for which lies immediately at hand. It is within every one's power to advance our knowledge of the subject, and, I may add, hunting up the genealogies of well-known forms of ornament is a most attractive pursuit and can be quite exciting at times. Strict continuity is not easily obtainable, and it is impossible to take into consideration the countless indirect influences which affect the growth of an Art and help to divert it from following a straight course. We are content, when we can, to sail down the middle of the main stream, taking little heed of the many smaller tributaries, which nevertheless affect the course of the stream with their influence.

I have in the course of the following pages frequently to use the term 'Savage' as applied to the more lowly cultured races of mankind. In doing so I am merely using a commonly accepted term for want of a better. I do it under protest, as the word is very unsatisfactory whether taken in the light of its modern significance, which would ascribe 'ferocity' to many inoffensive peoples, to whose nature it is

wholly strange except when introduced to them by civilised invaders; or whether considered according to its original meaning, i.e. living in woods or forests (Fr. sauvage, It. selvaggio, from Lat. silva, a wood), as in this case its inappropriateness is manifest when it is applied to such races as the Esquimaux, for whom forests can exist only in ecstatic dreams, and with whom drift-wood has to be substituted for growing timber. The French expression 'naturel' is far preferable, but our equivalent 'child of nature' is too unwieldy for general use, and the single word 'natural' is out of the question from its unfortunate significance of crazy in some of our northern dialects.

The illustrations are partly from photographs of specimens or illustrations in other works kindly made for me by Mr. A. Robinson, but mostly from my own sketches, and these are necessarily rough as I have been satisfied that they should illustrate as clearly as possible the special points for which they were selected, and have not attempted, what I regret is to me an impossibility, to produce artistic sketches.

H. B.

II NORHAM GARDENS, OXFORD.

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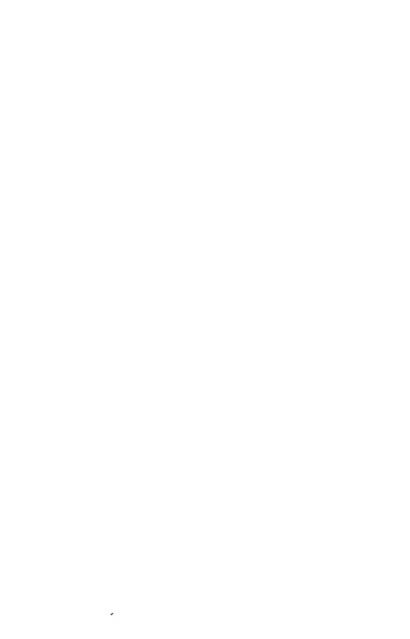
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Evolution of Decorative Art

I T is not my purpose to deal with the Fine Arts as a whole, but to restrict myself to the consideration of a single branch, that of Decorative Art, and to examine briefly such evidence as we have of its gradual evolution from the simple to the complex, both in the case of individual forms of ornament, and from a more general standpoint in the endeavour to trace the history of the art back to the earliest efforts of primitive man in a field as yet unexplored.

Of the actual infancy of Decorative Art we have no knowledge, and it is impossible to affix even an approximate date to its origin. The true history of its growth 'ab ovo usque ad mala' is lost and can never be written, and in forming our opinion of the condition of its early progress we are reduced to reasoning from analogy, and are unable to produce a chain of evidence in the form of events arranged in true chronological order.

It is well known that appreciation of the effects of artificial decoration to a certain degree extends

beyond the limits of the human race. There are, for example, various birds, such as magpies, jackdaws, 'bower-birds,' which love to adorn their nests, or, in case of the last named, their 'bowers,' with various bright objects,-shells, paper, bleached bones, silver spoons, and other articles foreign to the elements required for mere construction. With them, however, this would appear to be the result of instinctive attraction to bright and glistening objects generally, and there is no true creative operation of the intellect which characterises the use of decoration as a fine art. In the same way, no doubt, Man in his earliest and most uncultured state appreciated to some extent beauty as occurring in Nature, and was attracted by uncommon or brightly coloured objects, or by any individual peculiarities in familiar things which presented themselves to his notice, long before he conceived the idea of *imitating* them. The discovery of numbers of the little perforated beadlike fossils. Coscinopora globularis, in small groups in the gravels of the River Drift, seems to point to the fact that in early Palæolithic times these were collected for their peculiar appearance and comparative rarity, and were very probably strung together to form necklets or bead-strings, just as modern savages frequently select natural objects of peculiar form for the adornment of their persons, or for use as charms.

The earliest attempts, however, of Primæval Man in decoration as a fine art, are, as I have already said, completely involved in obscurity, and their true history can be only speculated upon. We have no direct evidence of any attempts having been made during the early Palæolithic age to embellish any of the useful objects, or to apply artificial ornamentation in any form. The rude implements, roughly made from pieces of flint, which are found in the gravels of the River Drift, and which are the earliest evidence we have of Man's attempts at manufacture, are never embellished with decoration of any kind. Indeed, the material, hard and difficult as it is to work into shape, is utterly unsuited to the application of decoration except in the most expert hands.

It by no means follows that Man in the 'Drift Period' was unacquainted with the art of ornamenting; he very probably frequently carved or chipped rough and simple patterns upon his implements of wood, bone, or other comparatively soft materials, but these, unfortunately, have not been handed down to us, having been unable to withstand the destroying action of time, which leaves only the hard and practically imperishable implements of flint to indicate to us the state of culture in those extremely remote ages.

In later, though still very remote, times—during the early portion of the 'Cave Period' so called—

the absence of evidence of artificial decoration is still a marked feature. Amongst the remains in France of the period to which Mortillet has given the name 'Moustierienne,'—the epoch especially of the Cave Bear (*Ursus spelæus*) in Europe,—are found remarkably few implements of bone or horn, and none of wood, and consequently traces of ornamentation are almost entirely absent. The stone implements show no attempts at decoration.

During the 'Époque Solutréenne' a certain number of horn and bone implements appear associated with flint and chert blades which are masterpieces of workmanship; but, although certain would-be realistic carvings of deer in high and complete relief upon stone have been found,¹ embellishment of purely decorative nature is extremely scarce. The mammoth was a prominent feature during this period, and the reindeer appears upon the scene in Southern France.

It is during the 'Époque Magdalénienne' that the art of the 'Cave Period' fully manifests itself. The period of excessive cold in Northern and Central Europe was coming to a close; the Post-Glacial reaction had set in, and in the finds of Laugerie-Basse, Les Eyzies, Bruniquel, Schussenried, and other places, evidence is discovered of the stimulus to the arts of

¹ Mortillet, Musée Préhistorique.

the inhabitants of these regions, resulting from the less severe climatic conditions and the diminished hardness of the struggle for existence. The climate was still a rigorous one, and an examination of their implements proves that the people of this latest division of the 'Cave Period' depended principally upon the products of the chase for their food-supply. The reindeer, now to be found in Europe only in the extreme north, was perhaps the principal feature in the surroundings, and furnished at the same time food, horn for fashioning into spear-heads, daggers, and other implements, and no doubt also clothing and other necessaries of life. This race of hunters and fishers, living under a somewhat rigorous climate, may, in their general mode of living, have resembled the Esquimaux of modern times, and a striking resemblance is certainly seen in the condition of their artistic attainments.

Very many of the implements made of reindeer horn, so characteristic of this period, which have been discovered in the cave breccia of Southern France, Switzerland, and other parts, are decorated with representations of animals, many of which are very lifelike and well executed, showing a state of artistic culture which appears disproportionate to the primitive surroundings. Some of the studies are poor and indistinct, it is true, but a number are

spirited and clever life-studies of various animals very familiar to the people who depended upon them so largely, such as horses, reindeer, fish, etc. The boldly executed figure of a mammoth scratched upon a fragment of the ivory tusk of this animal, has been deservedly often quoted and figured, and is an excellent example of the earliest known attempts at realistic representation. The etching of a reindeer

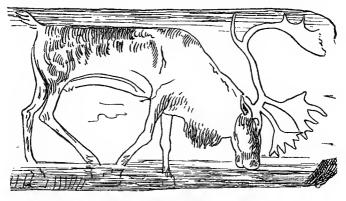


Fig. 1.-Prehistoric drawing of Reindeer, Cave of Thayingen.

found in the cave of Thayingen stands conspicuous as a masterpiece of 'life-study,' equally as regards the correct outline, the attitude portrayed, and the execution (Fig. 1).

We find, moreover, representations of Man himself among these sketches (Fig. 2).

¹ Lubbock, Prehistoric Times, p. 340.

This was pre-eminently an age of *realistic* representation; the sketches, which are for the most part



Fig. 2.-Prehistoric drawings, Cave Period, La Madelaine.

scratched upon the surface of pieces or tools of reindeer horn—more rarely upon pieces of flat stone—being evidently intended to be faithful portraits of the animals, applied to the convenient surfaces afforded by the various implements, and possibly not with any idea of beautifying the latter, though it is quite possible that some of the groups and scenes represented may have been intended to record special events, such as hunting incidents; they may, in fact, in many cases, have been a rudimentary form of picture-writing, such as that with which the North American Indians recorded the events of their time.

Occasionally, however, a departure from strict 'realism' is seen, as when, for example, the handle of a dagger or other implement has been carved to represent the figure of some animal in complete

relief. The two examples here given illustrate this point (Figs. 3 and 4).

> In the one, an entire dagger of reindeer horn, a figure of a reindeer has been carved with considerable skill at the upper or handle end; in the other, a similar idea has been executed, the blade being missing. In both cases it has been necessary to distort

> the animal's attitude. in order to adapt its form to that of a convenient handle, and Fig. 4.—Dagger handle of Reinthis form of repre-



deer horn, Bruniquel; from a cast.

sentation, though fairly accurate so far as is compatible with the strained attitude. must be classed as conventionalised for purposes of ornament, thus differing from the incised sketches mentioned, which must be classed as realistic portraits. It is true the distortion in these instances is slight, and but little detracts from the value of the representation of the animal, but neverthegerie-Haute; less the carving is to a certain extent subservient to the function of the implement, and

FIG. 3. Dagger of Reindeer horn, Laufrom a cast.

has been modified so as to conform to necessary outline.

Many of the horn and bone implements, especially the 'harpoon heads' and smaller points, exhibit decoration apparently of a purely fanciful or conven-

tional character, such as plain, straight, or curved lines, chevrons and notches. The harpoon head represented in Fig. 5 affords an example of simple decoration of this kind. We must nevertheless regard the characteristic art of the later 'Cave Period' as realistic.

Leaving now the 'Cave Period,' and passing on to the Later Stone Age or 'Neolithic Period,' we lose sight of the bold realistic representation so characteristic of the 'Époque Magdalénienne.' Such carvings as may be classed as realistic are for the most part both rudely executed and poor in conception, and, moreover, rarely found at all. Rarely an implement of stone is found, which is ornamented with the head of an animal well carved upon it; such an example is given in Fig. 6, and shows the head of a bear cleverly executed by carving upon a perforated axe of stone; but such an example is quite Harpoon head, exceptional, and probably belongs to (British Museum). the end of the period. The greater part of the artistic skill of this period would seem to have

La Madelaine

been lavished upon the symmetrical shape and finish of the implements of stone, and the laborious polishing of their surfaces. Most writers assert that the Neolithic Period was behind the Cave Period in



Fig. 6.—Stone Axe-head with carved bear's head, Russian Carelia (Acad. des Sciences, St. Petersburg).

the art of design. Boyd Dawkins, in his Early Man in Britain, remarks: 'Although the neolithic men were immeasurably above the cave men in culture, they were far below them in the arts of design. They have not left behind any well-defined representations of the forms either of plants or animals, . . . and their highest artistic achievement is the rude figure of a stone axe in its handle of wood, engraved on the roof of the sepulchral chamber of Dol-ar-Marchant, near Locmariaquer in Brittany.' This assertion holds good only with regard to the realistic style or studies from nature; in conventional or fanciful design a considerable advance is observed, and the art of this age was devoted rather to embellishing and beautifying useful objects than to, so to speak, sketching from nature. Its 'school' was a very different one, but by no means necessarily inferior.

The representation of a hafted stone axe (Fig. 7), mentioned by Boyd Dawkins in the passage quoted above, is an example of a rough realistic sketch, cut upon a slab of hard stone, the outline representing very fairly the form of some hafted stone axes which have been discovered; this design occurs fairly frequently upon the walls of sepulchral chambers in Brittany and elsewhere in France, and would seem to have had some symbolic meaning.

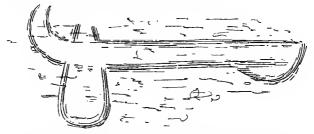


Fig. 7.—Representation of Stone Axe carved on wall of sepulchral chamber, Dol-ar-Marchant, Locmariaquer. (From a sketch made on the spot.)

The fanciful decoration of stone implements of the neolithic age frequently gives evidence of considerable skill and taste. In Denmark, even the implements of flint, works of art in themselves, were sometimes ornamented with zigzag lines laboriously and skilfully chipped upon surfaces and edges, showing how complete was the mastery over this hard and difficult material. The figure of a Danish flint dagger shows this form of ornamentation, to which I shall again have

occasion to refer later on (Fig. 8). In the Copenhagen



Fig. 8.—Dagger of Flint with ornamented zigzag lines, Denmark (Pitt Rivers Collection).

Museum ('Oldsager') there is a truly magnificent specimen of ornamented dagger of this kind, perhaps the finest example of flint work extant. It is significant that we, with all our nineteenth-century appliances, should be absolutely incapable of producing flint work to compare with these examples, which have baffled all the attempts of the most laborious and sanguine 'forger.'

We are still in doubt as regards the implements, and handles of implements, of softer materials during this period, as these have for the most part perished, but we can only suppose that these were frequently embellished with carving, more elaborate no doubt than that bestowed upon the harder materials.

It is perhaps unnecessary to pursue further the subject of our knowledge, or perhaps rather our ignorance, of the art of the remote

ages. The foregoing remarks upon art in the important early periods, the 'Drift,' 'Cave,' and 'Neolithic'

periods, are necessary in order to show very briefly how extremely incomplete is the actual record, and as an introduction to the main portion of this essay. We first become acquainted with the art of design in the remains of the Cave Period, but it is evident that art had had a long history of progress before this stage was reached, that the infancy of the art had already long been forgotten, with an imposing list of intervening ancestors. There is at least no reason for supposing that the people of the Cave Period became acquainted with the art purely by intuition.

It is further manifest that a study of the relics of Prehistoric times gives evidence of marked phases or epochs in the history of decorative art; but, even when the matter is treated in far greater detail than I have been able to do here, the succession of ideas required to form a complete history is by no means clear. We have only isolated links without the means of connecting them into a continuous chain.

In the absence, therefore, of direct record, we must turn from the study of prehistoric Archæology and look elsewhere for evidence which may throw light upon the origin and early progress of decorative art, and, by examining the conditions to be found among those *living* races of mankind which are most nearly allied to Primæval Man, form from these our

conclusions as to the actual history of the art in the human race as a whole. Let us turn therefore to the modern savage races, among whom we may find those varieties of the human race which we believe to be lowest in the scale of civilisation, whose condition of culture is in the most primitive of existing states. These should certainly in some sort supply our want, as we have every reason to believe that while some races are obviously degenerate, many of these types of mankind really represent to a very great extent the condition of man in remote times, before the gradually and continuously accumulating experience of ages had raised him from a low state of culture, when he was largely dependent upon natural objects, or the forms of nature but slightly modified, for his implements, and when the art of manufacture was yet in its infancy.

If we examine, for instance, the condition and mode of living of the aborigines of Australia we can at once see that their state of culture is a truly primitive one,—a case on the whole of arrested or retarded development, rather than one whose lowly condition is due to retrogression or degeneration. General Pitt Rivers has ably pointed out the evidence of this.¹ There is no evidence of their having in former times enjoyed a higher civilisation; their tools and weapons are for the most part of the simplest kind,

^{1 &#}x27;Primitive Warfare,' Journ. Roy. United Service Inst., xi. No. xlvii.

and in many cases are merely such fairly serviceable forms as are supplied ready-made by nature, such as pieces of stone, shells, sharks' teeth, etc., or the forms of nature but slightly improved by art; their implements of wood in all cases follow in their shape the natural grain of the wood; the variety is small, the same implement frequently serving both as a tool, perhaps for a variety of purposes, and as a weapon. The same kinds of implements are spread over the entire continent, and although the actual shape varies to a certain extent in the different important regions, yet the persistent local differences are often so slight as to be appreciable only to the natives themselves. Except where civilisation has reached them, they are still absolutely in their 'stone age.' Their customs, religion, etc., show equally that the natives of Australia are, speaking generally, in a primitive and not in a degenerate condition.

Many other savage races give equally good evidence of retarded development, of having, by reason of their geographical position or from other causes, remained practically in the same condition through countless ages. They have been, and are, progressing, but progressing very slowly; for the rate of progress

¹ In considering thus the natural status of savage peoples one must eliminate the influence of higher civilisation resulting from their comparatively recent contact with whites.

increases in geometrical ratio as knowledge and experience accumulate, and geographical position is a prime factor in determining the rate, as isolation greatly militates against the rapid increase of knowledge, and the consequent quickened rate of progress in culture.

The recently extinct Tasmanians afforded a most interesting example of arrested development. only were they still in their stone age, but the fact of their never having shaped their implements of stone by rubbing or polishing, but by chipping or flaking only, and that of the simplest kind, and their never having hafted them in handles, seems to refer back their condition of culture to that of the earliest palæolithic times, and to present them to the anthropologist as survivals from almost the earliest periods of human development. Their stone implements were far ruder in fact than the better examples of palæolithic stone work of Europe, and in variety of design extremely limited, and their general inferiority in workmanship was unrelieved by examples which betrayed in any way what might be considered as more than very moderate skill in manufacture. Were it not for their ruthless extermination by the savage methods of intruding civilisation, which resulted in their complete extinction in 1876, this interesting race would still have been living, an instance of persistence of primitive conditions which seem strange to us when we think of the strides made by civilisation elsewhere.

We are justified, therefore, in appealing to the study of the primitive arts of savages, in order to elucidate points concerning which the evidence afforded by archæology is incomplete. Assuming this I will pass on to consider the light which the art of modern savages throws upon the study of the origin and growth of Decorative Art. By the examination and comparative study of various patterns and designs, and especially by means of series illustrating the variations upon particular designs, we may arrive at certain conclusions as to how these have grown up from earlier stages, and in some cases trace their evolution back to their absolute origin as patterns. At the same time many of my illustrations will be drawn from the art of civilised people, in which the raison d'être and evolution of patterns and designs are frequently very clear.

FIRST STAGE.

As in the useful arts so also in the fine arts we find the lowest (least cultured) savages deriving their early ideas from Nature. We find very much that in the matter of the Æsthetic Arts the condition corresponds with their primitive state of general culture. The ornamentation, for example, of their weapons



and other implements is for the most part extremely simple, frequently, in fact, consisting of nothing more than natural peculiarities in the material, it may be knots in the wood, or the nodes on a reed stem, which are slightly emphasised with colour or otherwise in order to increase their decorative effect General Pitt Rivers has given a good example of the adoption of a natural feature as ornament. In the collection formed by him there is an Australian 'boomerang' of unusually light-coloured wood, the curve, as usual, following the grain of the wood. Along the length of the weapon in the central line are a number of small natural knots in the grain, situated at fairly regular intervals. The peculiarity of this regular succession of knots evidently attracted the notice of the maker of the weapon, and, in order to increase the decorative effect, he stained each knot a dark colour, thus throwing these into greater

prominence upon the light ground colour, and, moreover, to many of the dark patches he gave a more or less lozenge-shaped outline, in order to further enhance their value as ornament.

The decorative effect of the nodes upon a reed-stem or bamboo, due to the regularity of their arrangement, has appealed to the minds of savages in various parts of the world, Australia, New Guinea, Africa, and other parts, where we find spear- and arrow-shafts of reed, in which the nodes have been scraped smooth, and the bands thus formed round the stem have frequently been picked out in black, red, or white. I shall have later on to refer to this treatment of reed-stems again, when I shall show how from a quasi-natural decoration of this kind an elaborate pattern has been evolved (p. 102), as in this case there is the additional stimulus of necessity, the smoothing of the nodes being an improvement to the weapon made of the reed.

In these examples we have two extremely simple forms of ornamentation, suggested directly by natural peculiarities in the material, to appreciate and intensify which requires but a very slight intellectual effort.

Anything peculiar in the material used in the manufacture of objects of every-day use would be sure to attract notice, and, possibly, in the first instance, would suggest itself as a convenient mark of ownership, that is a sign whereby to distinguish the particular object from other similar objects belonging to other people.

From the mere appreciation of the uncommon to the artificial increasing of the effect, the step is, as I have said, but a slight one; but in a low state of culture, such as that of the less cultured savages, natural progress advances by extremely slow stages, never by sudden strides. The savage mind is receptive to a certain extent only, and is unable easily to grasp new ideas if they are greatly in advance of existing knowledge; they must be led up to by easy stages.

The savage peoples from whom I have drawn these examples of primitive ornamentation have, it is true, reached far beyond the earliest stages in the art of design; their art is no longer in its infancy. The art of the Australians, as of many savage races, is undoubtedly in a rudimentary state, but it nevertheless shows signs of steady progress during past ages, in the differentiation of its branches, and the skill sometimes displayed in the application of ornament. In savage art we find, as I have said, much evidence of its having been schooled by Nature, and the examples of Nature-suggested forms of ornament, such as those I have mentioned, seem to reflect the birth of the art and to be survivals of early phases in

the history of its progress; they may, in fact, serve to suggest to us how the art of design first dawned in the remotest ages.

There can, I think, be little doubt that both graphic and plastic arts were in the first instance suggested to man in simple ways of this kind, and their origin should be referred back to the time when man's æsthetic appreciation of peculiarities, either natural or produced as accidents in manufacture, was sufficiently developed to suggest the application of artificial means in order to increase their effect; in other words, to control them to serve the special purpose either of representation of other objects or of ornament.

The first stage in the development of design as a fine art was purely what may be termed an ADAPTIVE stage, that is, man simply accepted and adapted effects which were accidentally suggested to him. I shall have occasion to mention several other instances illustrating this stage, when I come to deal with the history of certain patterns and designs, and the manner in which they first originated as such.

SECOND STAGE.

As a natural result of the appreciation and adaptation of natural or accidental effects, there arises a desire to produce artificially similar effects

where these do not exist. For this a *creative* operation of the intellect is required, and it is here that the art develops fresh importance, and assumes a definite vitality. <u>Imitation</u> is the mother of art, and is the outcome of this desire to possess some object or to reproduce some effect which is admired; it is inherent in our nature, and is perhaps the principal stimulus in the early development of the fine arts.

As a natural outcome of the development of the art of *copying* at first hand we come to *successive copying*, and the importance of this latter process in the development and progress of the art of design cannot be over-estimated.

So long as the intention in each case is merely to make as accurate an imitation of the original as possible, it would seem that copying, whether successively or at first hand, should be considered as belonging to the Second Stage; but, as the effect of this successive copying is in all cases to create changes in the original design, even though unintentionally, and to render the primary conception very unstable, it is necessary to treat of this under the Third Stage, and to explain in connection with this stage the meaning which is here assigned to the expression 'successive' copying, and the value of this as a factor in the evolution of designs.

THIRD STAGE.

This, which is the resultant principally of successive copying, may be termed the stage of *variation*, and must be divided into two sections:—

- (a) Unconscious Variation.
- (b) Conscious Variation.
- (a) Unconscious Variation.—To a highly skilled artist it is no very difficult matter to make a copy of a simple object or pattern, which shall so resemble the original as to be hardly distinguishable from it. With people not specially trained, whether civilised beings or uncultured savages, and so we must believe also with primæval man, it is different. In unskilled hands and with indifferent tools accurate copying is an impossibility, and each new attempt at representing an object creates a variation from the original type.

Let us suppose that some one, whom I will call A, copies an object, and B copies A's version of it without having seen the original, and C copies B's, and so on; in each case the new copy varies from the immediately preceding one more or less according to the skill of the artist. We can readily see that in the course of time by such *successive* copyings designs can arise, which may entirely lose all

resemblance to the original object, and to A's wouldbe realistic version of it.

It would be almost impossible to obtain from specimens of savage art a really consecutive series of any length to illustrate this point, as, in order that one may be sure of the absolute continuity of the line of succession, the series must be produced under circumstances which admit of constant supervision. It is, moreover, doubtful whether a long series of changes in a design is often, or ever, produced entirely by unconscious variation. Still, as this is so important a factor in the evolution of ornament and the conventionalisation of original realistic designs, it is necessary to have some illustration of the workings of this process, in order to show how rapid and complete may be the changes effected by it.

With this object in view I have formed some series after a method originated by General Pitt Rivers and suggested to me by him some while ago. Briefly thus: I first made a rough sketch of some object which could easily be recognised. Then I procured a number of pieces of paper of the same size as that on which the sketch was made. Next I enlisted the aid of a number of people who, while having some notion of copying designs, were not by any means skilled in the art (this in order not to make the series unnecessarily long, and in order

to adhere to a certain extent to the conditions of *primitive* copying; to this end also the copies were made with a pen and not with pencil, as the latter, with its attendant possibilities of rubbing out, would have rendered greater accuracy possible).

To the first, A, I gave my sketch, of which he made as accurate a copy as he was able on one of the slips of paper. I then withdrew my original, and set the second person, B, to copy A's version, which was then withdrawn; the third copied B's sketch; and so on; in every case all the former sketches were withdrawn from sight, the last alone of the increasing series being issued to be copied afresh. In this manner series were formed of successive copies, each of which was intended to be a faithful representation of the one immediately preceding it. Still, and it is to this that I wish to particularly draw attention although no two adjacent sketches exhibit very marked differences, the extremes of the series show hardly any resemblance to one another, and, if seen apart from their series, would certainly not be recognised as the same design, or as being in any way related The examples here given (see to one another. Plate I.) will serve to illustrate this, and, humourous and even frivolous though they appear, afford good examples of the unconscious variation of a design, the result of want of skill. The successive

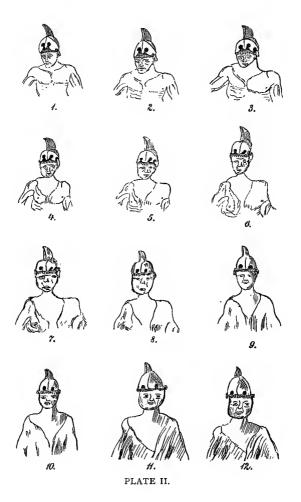
PLATE I.

sketches are numbered from I to I4 in the order in which they were made. No. I is a sketch representing a snail crawling over a twig. In the course of six successive copyings the design had lost its meaning; by No. 10 the shell of the snail had left the body of the mollusk and had 'crawled' up the twig, the hinder end of the snail becoming intimately associated with the base of the twig. No. 12 is a copy made by a skilled artist, who was asked to 'interpret' the design at this stage, and to show in his sketch what he thought it was intended to represent. The next copyist, not being able to make anything of the design when viewed the right way up, reversed it and proceeded with satisfaction to copy it upside down, under the impression that he was reproducing a 'bird' design; so also in No. 14, and in the succeeding copies which are here omitted, this interpretation was retained. This truly is 'evolution made easy'! The bird can here be traced back to its gastropodous molluscan prototype, through a continuous series of developmental changes of the simplest nature! The whole metamorphosis requires but fourteen of these changes, covering a period, say, of a day or so, and there is your bird-like form still irredeemably connected with its humble prototype, however much it may, if seen by itself, appear to scorn such an alliance.

It is interesting to trace what becomes of the various portions of the design individually. The large end of the twig becomes the bird's head, the growth-rings supplying the eye; the snail's body remains as that of the bird; the snail's head, with the prominent 'eye-stalks,' degenerates into the forked tail of the bird; the shell of the snail into an unwieldy and unnecessary wart upon the, shall we call them, 'trousers' which were once the branching end of the twig.

One more example may serve to further illustrate the workings of the process (see Plate II.).

A sketch, No. I, of the head of the Patroclus, of the Ægina Marbles, was submitted to be copied. In the course of eight or nine successive copyings, the Greek warrior became metamorphosed into a female figure, a sort of helmeted Minerva, the helmet being much modified from the original type. But the most interesting point to notice is the ultimate fate of the strongly-emphasised lines representing the muscles and the collar-bones, a prominent representation of which is so characteristic of Greek art. The lines of the collar-bones droop lower and lower at the centre, till at length they form together an elongated V, giving to the later copyists the impression of a cloak thrown loosely over the shoulders, and even enveloping the arms, which were originally free and distinct, the



muscle lines going to supply folds in the mantle. At No. 9, as at No. 12 in the last series, a skilled artist was asked to interpret the design.

These two examples will be sufficient to show the importance of this process in the production of variations upon a given design, and how an original idea may, through lack of skill, become modified and completely lost, while a new suggestion of its meaning may arise and be accepted, this again in later stages tending to be obscured and to become meaningless. The process of 'degradation' is hastened or retarded according to the greater or less skill displayed, but the design is unconsciously varied, and in no case has there been any intention to make the copy differ from the thing copied. Although, in order to illustrate this point with series whose continuity could not be doubted, I have not drawn my examples from actual savage art, still the workings of this process are often very apparent in the art of the lower races, as also in that of civilised peoples.

It would appear that this process was an important factor in producing the remarkable series of variations from the original type to be noticed in the ancient Gaulish and British imitations of foreign coins, such as the gold stater of Philip of Macedon, as has been so well described by Dr. John Evans.¹

¹ Proc. Royal Institution, vii. p. 476.

Thus it may be stated that, in the early condition of man's culture, conventional or fanciful design, which is usually the result of such variation, has been to a great extent unconsciously evolved from realistic representation, and the passage from the one to the other has been by easy stages, by successive slight changes.

It is obvious that, if instead of actually copying a design, the reproduction is made *from memory*, the process of unconscious variation will be greatly hastened.

(b) Conscious Variation.—This unintentional variation of design is, however, frequently, usually in fact, accelerated by another process, which I have called conscious variation, that is to say, the desire to vary or improve upon the design copied. While the two processes may be associated, each contributing to the changes effected, conscious variation is frequently to all intents and purposes the sole agent. Some resemblance to the accepted type or model is retained, but there is no idea of slavishly adhering to the original in detail. This usually results in some particular portion or portions of the original design being specially emphasised, and made thus to develop at the expense of the remainder.

Conscious variation may act in many different ways, and be dictated by a variety of circumstances, and I now propose to give a number of illustrative examples of its importance in the development of ornamental designs, and the evolution of conventional designs from more or less realistic originals.

On the shafts of many of the very elaborate spears or lances from the islands of the Solomon group, Melanesia—especially those from Bougainville Straits and St. Christoval—is seen a curious pattern, carved in low relief at the base of the long multibarbed head. This pattern varies to a considerable extent, as may be seen from the examples here given, but in examining a number together it becomes obvious that they are all modifications of one original design, that they are all traceable to one primary conception, that they are in fact survivals of various stages of variation. By a process of associating together those of them which most resemble each other, a series is formed which at one end is composed of designs such as that shown in Fig. 10a, while at the other end we find patterns of the kind shown in Fig. 10e. Between these extremes are various intermediate forms, which resemble the extremes more and more as they approach them, and which are more 'generalised' towards the centre.

From such an arrangement we learn that the original type was a representation of the human form, not 'divine' but grotesque, though still recognisable as such. This is represented in Fig. 10a, which shows the

body with arms and legs fully represented, though the head is detached; this latter, it will be noticed, is chiefly remarkable for the very prominent angular mouth. Fig. 10b shows a modification of this conception; the body has been split up in order to increase the decorative effect, the arms and legs coalesce with those of the corresponding figure on the other side; the face too is modified. Fig. 10c shows another modification of the design, in which the

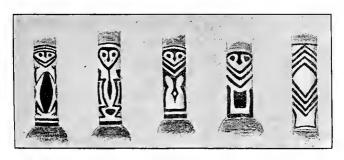


Fig. 10.—Carved designs on Solomon Islands Spears.

(Pitt Rivers and Ashmolean Collections.)

various parts are still more conventionalised, the reduction of the body and limbs has proceeded further, the former a mere central patch, the latter represented by lines down the sides which meet each other across the base, forming thus a kind of frame to the lower part of the design. The mouth, absent in 10b, is here extremely prominent, being in fact

reduplicated to form a bold double 'chevron.' In Fig. 10d the 'mouth' is triple, and by far the most important part of the design, the central 'body' patch and rectangular frame still surviving. Fig. 10e represents a perfectly conventional pattern derived from the design; the face is suppressed, while the all-devouring mouth is quadrupled, and, for purposes of symmetry, a corresponding number of 'mouths' are added turned the other way, forming an elegant though meaningless chevron pattern. The rectangular remains of the body and legs have, curiously enough, survived the various changes which have led up to the fanciful pattern, and remain to emphasise the alliance of the last stages to the first.

Such a series as this cannot pretend to illustrate the *continuous* succession of variations which have led up to the conventionalised pattern, but it shows, in a general way, the manner in which this has been gradually arrived at. There are numerous other variations upon this design, which branch off at different stages. The actual genealogy of these various connected patterns derived from the original design of the human form upon these spears, would have to be represented in the form of a tree, with main stem, branches, and sub-branches.

In the same group of islands—Solomon group—a very characteristic form of design is that whose

motive is a representation of the 'frigate' bird. The variations upon this theme are endless, and in many cases the representation of the bird has become, by a gradual process of reduction, converted into a fanciful and meaningless arrangement of lines, whose relationship to the original idea would be unrecognisable, were it not for survivals of earlier stages in the series. I give a sketch of one of the characteristic ornaments of tridacna shell, decorated with an incised design, picked out in black.

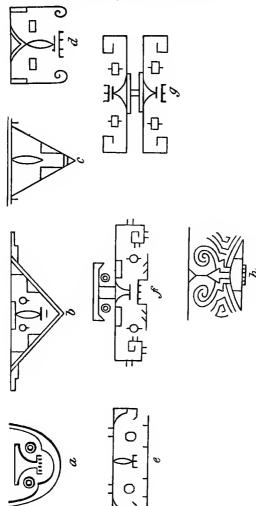


Fig. 11.—Engraved shell pendant, Solomon Islands.
(Pitt Rivers Collection.)

This example shows an intermediate stage between realism and absolute conventionalism. The 'bird' idea is still distinctly recognisable, though the wings are scrolled, and the forked tails of the principal figures are confluent with other portions of the design representing other frigate birds, or portions of them. The idea of ornament preponderates over that of realistic representation, and it is easy to see how it is that many of the quite meaningless patterns of the Solomon Islands have been evolved through a generalised stage of this kind, from an original would-be realistic figure of the frigate bird.

Some very interesting examples of variations upon an original would-be realistic theme are given in the Archivos do Museo Nacional, Rio de Janeiro. VI., 1885. From the very numerous figures of designs representing a human face found upon the pottery of the 'Mound builders' of the Amazon, given in that work, I have selected the following:-Fig. 12a shows one of these designs which, though far from realistic, shows that it is undoubtedly intended to convey the impression of a human face. The eyes are prominent, the nose and mouth more or less coalesced, the teeth being represented by a ratchet-like row of marks. Fig. 12b is a still more conventionalised form of the face design, with triangular outline; the nose is fusiform, and there are various other modifications which increase the decorative effect. Fig. 12c is a more or less direct

Fig. 12.-Face designs upon ancient S. American pottery,



variation of b; the eyes are missing, but the fusiform nose and other portions of design b persist, as does the triangular outline. Fig. 12d is a variation in another direction, it is more rectangular, and the parts of the face are more completely represented, the ratchet-like marks on the mouth are reproduced as rays on the nose, which expands above into a figure whose origin is seen in a. Fig 12e is a broadened variation allied closely to d. The turned-up ends at the sides are angular instead of scrolled as in d.

Fig. 12f is a complex derivative; the eyes are below the level of the nose, and the mouth is much exaggerated with numerous rays. Above, under a T-shaped figure, a second pair of eyes has been introduced, though it is doubtful whether at this point the prehistoric artist knew that the design which he was making, the decorative effect of which he endeavoured to increase, was derived from earlier representations of faces. Fig. 12g is a design in which the figure is reduplicated, the two 'faces' being placed together to form one symmetrical complex design; the component elements being much the same as in f, extra 'eyes' are introduced at the sides outside the figure. Fig. 12h is a curiously scrolled variety, in which the eyes, nose, and mouth are apparent only when viewed in the light of the other examples.

A repetition of these designs in close proximity, as seen in g, greatly augments the decorative effect on the pottery, at the expense of the realism. All the variations must be regarded as slight improvements upon others that have gone before; they are undoubtedly related to one another, and in all we can, by comparison in a series, trace the primary idea, viz., that of a human face. The larger the series the more apparent does this become, as the intermediate stages serve to explain the relationships more clearly. A new design will frequently be influenced by a number of preceding ones, and not merely be a modification of a single one. This fusion of the parts of several designs leads to very complex derivatives, presenting frequently an apparently inextricable confusion of ideas to him who would unravel the separate lines of growth, which have, so to speak, been plaited together in various combinations, till at length the original conception is completely obscured in a web of tangled threads.

The series which I have just given may be taken as illustrating the *amplification* of a design, and the reduction of realism for increased decorative effect, and I will now give an example to show how a design, originally intended to be both realistic and decorative, may tend to disappear little by little, and perhaps vanish altogether.

A very large proportion of the pottery vessels made by the ancient inhabitants of Peru for holding water or other purposes, are shaped so as to represent animal and other forms more or less conventionalised. and of these a considerable number show the human form more or less grotesquely portrayed. By examination of a large series the stages by which the original quasi-realistic design has become modified, and has gradually vanished, can to a great extent be made out. The following examples, selected from the Peruvian pottery in the Pitt Rivers Collection, will serve to illustrate, in a broad and general way, the transitions. The series cannot be taken as representing the history and fate of the particular form of human representation shown in No. 1., but as illustrating the modification of the human form conception as applied to this class of pottery as a whole, involving a variety of modes of treatment of this theme. I am unable to say to what extent these variations in style are local differences within the area of Peru, or whether each style was intended to convey a special symbolic meaning.

Fig. 13a is a jug coloured red and white and shaped to a human form, the representation of which is almost as realistic as that in the well-known 'toby jugs' of the Swaddlingcote potteries; the limbs are distinctly marked and the face is well modelled.



Fig. 13.--Pottery vessels; Peru (Pitt Rivers Collection).

This, though it may possibly be a late form, is given as an instance of one of the more realistic examples, and shows to what extent realism could be maintained without materially affecting the function of the vessel. In b, the face is seen to be less well represented, the limbs are but faintly indicated by a slight raising of the surface, the hands, which are grasping a cup, are represented in complete relief, and at the extremities of the legs two little bosses represent the feet or toes. While the various attributes are still indicated in this specimen, there is a considerable loss of definition. Fig. 13c shows a further reduction; the face is grotesque with a small snout-like projection representing a fusion of nose and mouth, the arms are reduced to two short lateral ridges, there is no trace of legs but the toes survive in the two little isolated bosses unconnected with the rest of the design. The face alone remains in d^1 and this in a somewhat disorganised condition, though eyes, nose and mouth can be seen; the most striking feature is the great prominence of the loops representing the ears. In e the eyes have been suppressed, the nose and mouth still struggle for existence, and the 'ears' are doubled and ornamentally scrolled. This survival of the 'ears'

¹ This specimen, as also the next, though labelled Peruvian, may perhaps belong rather to Ecuador as a type, but there is a continuous distribution of 'face vases' from Peru northwards, and the various types are probably more or less connected in their origin.

in an exaggerated form, in spite of the entire suppression of the rest of the figure, leads me to suggest(somewhat tentatively that the two lateral loop-like handles frequently seen upon plain examples of these Peruvian pottery vessels, may have been to a great extent suggested as a useful adaptation of the loops representing the ears of the human figure. This may have been only partly the case, as we may see many examples in which very serviceable handles are formed by the two arms placed high up between the sides of the face and the shoulders of the vase so as to form two very convenient loops; whether ears or arms were the first to suggest their possible utility as handles could possibly be determined by an examination of a larger series. This modification may well have appealed to those to whom the practical utility of the vessels was of greater moment than the fanciful embellishment.

There can be little doubt that, in the series just given, the disappearance of the details of the original design has been effected to a great extent by unskilfulness or carelessness on the part of the potters, who, while to a certain extent desirous of perpetuating a design which was generally recognised as suited to this class of vessel, successively allowed the various attributes to drop out, leaving them to the imagination, as it was easier to do this than to represent in

full a somewhat complicated design, in a material which in any case presented difficulties to the manipulator.

Now, bearing in mind the two isolated little dabs or bosses in No. 3 of the series just given, whose true significance, as representing the toes of a human figure, would not be clear, were they not interpreted by the more complete design in Fig. 13b, it is particularly interesting to recall the words of Mr. R. H. Lang in a paper upon 'Archaic Survivals in Cyprus' (Journ. Anthrop. Inst. 1887, p. 187), he says: 'The potter of to-day at Lithodronto, when he has turned his jug and is taking it off the wheel, puts two little dabs of moist clay on the right and left side of the rounded surface, a little above the middle. If you ask him why he does so, he will probably answer, 'so my father did before me,' and, in truth, the archæologist will pick you out from a pile of vases disinterred from tombs 2500 years old, numberless specimens with the same finishing touch, and others of the same age, superior to anything which the modern potter can produce, on which the two dabs represent two breasts, with a female head above them.'

Turning to the *History of Art in Phænicia and Cyprus*, by Perrot and Chipiez, vol. ii. pl. 4., we see one of these fine vases portrayed, showing a well-

designed female head, and below it upon the body of the vase two little cones representing the breasts (Fig. 14¹). No doubt the application of these little



Fig. 14.-Cypriot Vase.

cones required but very slight skill upon the part of the potter, and so these have survived while the face, the more difficult portion of the design, has vanished, leaving our less skilful modern Cyprian potter, with the application of his two humble little dabs of clay, to unconsciously perpetuate the memory of beautiful design, and contribute this token of mourning over a lost art.

Was it, however, merely want of skill or careless-

¹ Reproduced by kind permission of Messrs. Chapman and Hall.

ness on the part of the later potters that caused the original design to be thus mutilated? I think not, and give the following examples in order to show that perhaps, after all, accident had a great deal to do with it, and that the potters had some excuse. The three figures here given are taken from Schliemann's Ilios (figs. 46, 989, 1291), and represent three of the interesting vases found by Dr. Schliemann during his excavations at Mykenæ (I am indebted to Mr. Murray for permission to copy these figures). The first shows very distinctly a somewhat rough representation of a face, with, as in the examples which I have just mentioned, two little conical bosses, the breasts of the female figure, below it. We notice that both the face and the breasts are upon the body of the vase, the lid having no share in the design. In the second example (Fig. 16), the face is seen to have been transferred to the moveable lid, the breasts still remaining upon the body of the vase. Now supposing that the lid of such a vase were lost or broken, as undoubtedly must frequently have happened, 1 a still serviceable vessel remains with two little bosses upon it, a form of ornamentation conveying by itself no information whatever to the uninitiated. A new lid, to replace the lost one, would often be hurriedly

¹ Several vases were found by Dr. Schliemann which had lost their covers, as also loose covers without the vessels to which they belonged.





FIG. 15.

Fig. 16.



Fig. 17.
Face_Vases, Mykenie (after Schliemann)

made without going to the trouble of reproducing the old one in facsimile, a mere covering devoid of ornament. This would appear to be the case with the third example (Fig. 17), in which the lid is of a much less elaborate form than in the preceding example; the breasts in this one appear in isolated glory. There is no reason why a vase should not have been copied in this state, and reproduced again and again, by those who forgot, or never knew, the importance of the design upon the cover, and who would thus establish a class of vessels whose only ornament consisted in two small meaningless dabs, which continued to be added from force of habit, and have done so to the present day. If this is the true reading of the series, the person to blame for the degradation of this design would be the potter who, no doubt with good intentions, first transferred the face from the body of the vase to the less stable lid, and the modern potter is entitled to some praise for laudable efforts to perpetuate the only ornament which has been handed down to him.

That these 'breasts' became in themselves a recognised, though purely fanciful, form of ornament is proved by one of Schliemann's figures (fig. 58, *Ilios*) representing a pitcher on which there appear *three* of them!

Such 'survivals' occur constantly in ornamental

designs, though the history of the greater number is completely lost. In the cases which I have mentioned, conscious and unconscious variation have worked upon the same design, and the ultimate form of the pattern has tended to continue unchanged through a great length of time, to a great extent because of its extremely simple nature, which has not suggested further modification.

In further illustration of the process of conscious variation, one or two examples from modern civilised art may be given.

Where a particular design has a special meaning, which renders its frequent repetition desirable, we find it often introduced under circumstances which do not admit of realism, and there will be a combination of 'symbolic' with 'æsthetic' representation; that is to say, there will be an endeavour to increase the ornamental effect, at the same time retaining sufficient of the attributes of the original design to enable this still to be recognised in its conventionalised form. In Chinese art the *bat*, considered to be the precursor of happiness and prosperity, forms a frequent theme for decorative design, and variations upon this animal pattern occur upon a great variety of objects. I give here some of the variations which show greater or less degrees of conventionalisation.

The first (Fig. 18a) is a design upon the ivory

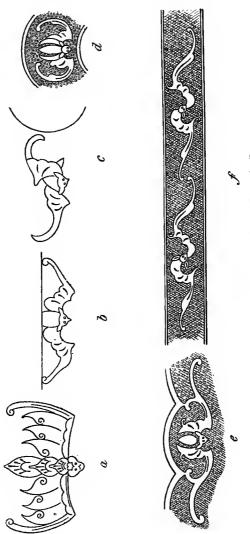


Fig. 18.—Chinese Figures of Bats variously modified for Decorative Purposes.

mountings of a Chinese musket, and shows a bat with wings and body ornamentally segmented and scrolled.

The others (Fig. 18b-f) are all designs of bats incised upon the brass-work (lockets, pommel, chape, etc.), upon the scabbard of a Chinese short sword. These are of especial interest as showing the same design adapted to different parts of the same object, variously modified to suit the essential forms of these parts; the last sketch (f) shows a portion of a continuous scroll of 'bats.'

Such variations as these are due to caprice on the part of the artist, tempered by the restraint imposed by the limitations of available space, which must be preserved in order to promote the utility of the object. But under some circumstances there is a greater need for variation; there may be a definite raison d'être for a number of modifications of a particular design. This is particularly well illustrated in the Japanese books of family 'crests.' The crest, or totem, of a whole clan will be in the first instance a realistic representation of an animal or other object. Those of the various branches and sub-branches of the clan will be variations upon this original, the variations being required in order to give distinguishing marks or crests to the different families composing the clan. Speaking broadly, it may be laid down that the further the family is removed from the original stock. the greater is the variation of the crest design from the original concept.

The following selected illustrations will illustrate this point. A crane, the emblem of longevity, is re-









Fig. 19 .- Japanese 'Crest' Designs: Crane.

presented (Fig. 19a) under a somewhat conventionalised form, though still easily recognisable. design is commonly met with in Japanese art, being constantly repeated for its symbolic significance. The crane also does duty as a family crest, and in Figs. 19b to d three variations upon this design are shown, variations created for the purpose of providing crests for the various subdivisions of the 'Crane' family, so to speak. Fig. 19b is evidently an abridgment of a design resembling Fig. 19a, the legs having been omitted. In the next, Fig. 19c, the head has been suppressed, leaving the long neck forming a kind of stalk-like appendage to the fancifully outlined body and wings. This stalk has in Fig. 19d grown into a veritable stem upon which the body and wings remain, the whole suggesting the stem and calvx of a

¹ Copied, with kind permission of the publishers, from Cutler's Grammar of Japanese Ornament. Fig. 22 is taken from the same source.

flower. No one, seeing this last crest by itself, would dream of its avian origin, or think of referring the proud owner of it to the 'crane' gens. It nevertheless, when seen in association with the other allied designs, obviously belongs to this group, the *necessity* for variation having brought its very modified form into being.





Fig. 20.—Japanese 'Crest' Designs: Butterfly.

Fig. 20a is a 'butterfly' crest, in which the head, body, and two pair of wings are distinctly shown, the clubbed antennæ lying close along the anterior margins of the front pair of wings. One of the modifications of this design is that given in Fig. 20b. This is a floral pattern, obviously derived from the butterfly design, being composed of an arrangement of 'anterior wings' and 'antennæ' disposed around a centre.





Fig. 21.—Japanese 'Crest' Designs: Feathers.

In Fig. 21 a we have a crest formed by two crossed

feathers, and Fig. 21b is a more fanciful modification of the 'feather' crest, being a composition of four half feathers, each minus its rachis, the bases of the feathers being distinguishable by the double curved lines.

Hundreds of similar examples are given in the Japanese 'crest' books, which are most interesting as showing the great skill, ingenuity, and true artistic feeling which have been brought to bear in the creation of variations upon the different 'totem' themes. Although these perhaps do not, strictly speaking, belong to decorative art, they nevertheless serve to illustrate the effects of a *necessary* variation of designs.

The *realistic* original of Fig. 19 is to be constantly met with in Japanese art, in the very faithful representations of the sacred crane, the bird of good omen, type of longevity. Fig. 22 is very characteristic, and



Fig. 22.—Japanese 'Crane' Design.

gives precisely that attitude which has been conventionalised in Fig. 19a, and so has led up to Figs. 19b, c, d by successive changes.

In the cases which I have given to illustrate conscious variation' the designs have been variously modified, chiefly according to the individual taste or caprice of the artists—though frequently carelessness or lack of skill is an additional important cause; and, except in the case of the Japanese crests, the principal motive for varying the designs has been the idea of increasing the ornamental effect, possibly in some instances associated with the desire to create slight differences to act as marks of ownership. There is no important reason why from the outset one portion of the design should be rendered specially prominent rather than another.

Occasionally there is a definite and valid reason for specially emphasising some particular portion of a design. That portion may have a *special* significance, which renders it the most important feature. In reproducing such a design again and again, the tendency would always be to preserve and make the most of this important detail, and the rest of the design would tend to sink into insignificance before its encroachments, perhaps to disappear altogether, leaving the principal feature master of the field.

When one small boy, if I may digress for a moment, puts out his tongue at another, it is understood that he desires to convey the impression of feelings of contempt and defiance towards the other.

The action is a simple one, but conveys a considerable amount of information, being, moreover, an incentive to action on the other's part. It may be said therefore that, for the time being—happily usually only a brief period—the protruded tongue, from the implied emotion, becomes the most important feature of the boy's face; and, even supposing that the eyes and nose were concealed, it would still convey its meaning, and serve to stimulate the latent energy of boy number two. This digression is not without its purpose, as this precise point finds expression in savage art. The ceremonial staves, hani, used by the Maori chiefs of New Zealand, are decorated at their upper extremities with carved grotesques of the human face, with the eyes made of discs of haliotis shell (Fig. 23 a). The most prominent portion of the carved design is the enormous lanceolate tongue, which is shown protruded from the mouth, usually covered with an elaborate carved scroll-work. The raison d'être of this greatly emphasised tongue lies in the fact that with the Maori warriors, as with our small boys, the protrusion of this organ indicates defiance and contempt, and this form of expression of these emotions is of considerable importance with this warlike people, the cultivation of this accomplishment forming an important part of the warrior's training. It is shown

in the illustration of a Maori war-dance in Wood's Natural History of Man. The design then upon the heads of the staves represents defiance or scorn, and the mere pointing of the upper end of such a staff at a foe would be sufficiently expressive. It is obvious, therefore, that the tongue in this design is by far the

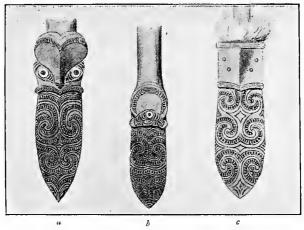


Fig. 23.—Carved Heads of Maori chief's Staves (a and b, Pitt Rivers Collection).

most important part, and this fact is borne out by the examples given in Fig. 23 b and c. In Fig. 23 b it is seen that the grotesque face has been represented sideways, in profile; there is only one eye, and the mouth is placed sideways, while a desire for symmetry has caused a nose (or the rudiment representing a nose) to be inserted on either side; but

the tongue remains as before, full-face, and this example serves to illustrate the lesser importance of the face, which can be varied, as compared with the unalterable tongue. In Fig. 23 c (adapted from Joest's Tatowiren, Plate V.) the subordination of the face is complete. It has been suppressed as unnecessary, while the all-essential tongue remains unchanged, symbolic to the last, but with no context, so to speak, to explain its meaning, if seen apart from other more complete, and therefore more realistic, examples.

The special retention and amplification of certain important portions of symbolic designs is very characteristic of mythological and totemic representations in savage art. The Haidas of British Columbia, for example, frequently decorate large spaces, the sides of wooden coffins, boxes, and other objects, by covering them completely with the eyes of the 'thunderbird,' or hands, or the two intermingled, painted upon the surfaces with highly decorative effect, the design at the same time retaining its symbolic significance. In cases, too, where the whole of a totemic animal figure is represented in a Haida carving or painting, although the general characteristics of the animal are not strictly adhered to, by reason of the conventionalisation of outline due to variation resulting from frequent repetition of the design, and the desire for increased ornamental

effect, still there is usually retained some distinctive attribute or sign whereby the animal which it is intended to represent may be recognised. The beaver is indicated by prominent incisor teeth, and may be recognised even when the characteristic spatulate tail is omitted or modified; the wolf, too, is recognised by the character of its teeth; the eagle, raven, and other birds, by the shape of the beak; a high and prominent dorsal fin betrays the killer whale, and so on. In this way it is possible even for the untrained observer to identify many of the symbolic figures of animals which occur upon such objects as totem poles, carved slate-stone pipes, etc.



Fig. 24 —Carved Pipe of slate stone, Haida, Britisb Columbia. (Author's Collection.)

One of these elaborately carved 'babeen' pipes is here represented, showing a somewhat involved group of conventionalised animal and human figures. At the bottom, facing towards the left hand, is a characteristic representation of the killer whale (orca), with its high dorsal fin projecting upwards, and furnishing

a support for a partly-reclining semi-human figure which is represented as joining tongues with a bird on the extreme left, which, from its straight beak, may be intended for the raven. On the extreme right is a 'butterfly' figure which is rescued from being unrecognisable by the curled proboscis, large round eye, and double wings, a powerful combination sufficient to form a majority to prevail against the alienating claims of such unlepidopteran appendages as a human mouth, a well-formed arm, and a most highly specialised feathered tail. The whole design very probably refers to some myth or legend well known to the natives themselves.

In the Hawaian Islands of East Polynesia an instance parallel to that of the New Zealand grotesques with protruded tongue is found. In this case it is the mouth to which a special importance is attached. In the numerous grotesque and symbolical figures of the human form, 'idols' so called by the missionaries, the mouth usually appears in a very prominent and exaggerated form, having a bi-lobed or dumb-bell-shaped outline.¹ This in many instances occupies the greater part of the space allotted to the face, and to such a degree is this carried in

¹ The late Professor H. N. Moseley gives an interesting account of the amplification of the mouth in Hawaian and New Zealand figures, and gives several figures illustrating his remarks (*Notes by a Naturalist on the Challenger*, pp. 504-511).

some examples, that the mouth *entirely* overspreads the face, and may be said literally to *swallow* up the rest of the design, which resolves itself, as in the case of the Cheshire cat in *Alice in Wonderland*, into a huge grin, whose affinity to an important human feature is only manifest when studied in the light of other less 'megastomatous' examples, in which traces of a face supply the necessary context.

The history and fate of symbolic designs has recently received much of the attention which its study deserves, but a very wide field yet remains unexplored, inviting investigation with the promise of most interesting results, which will amply repay those who are willing to examine the material with sufficient care. Quite recently Dr. E. B. Tylor has been able to solve the mystery of the designs upon Assyrian and other ancient monuments, representing winged human figures holding in their hands conelike objects, which they extend towards a much conventionalised palm-tree. A careful study of these designs goes far towards proving that they represent the artificial fertilisation of the palm-tree; the conelike objects being really the male inflorescences of the palm, which are being shaken over the fruitclusters of the female palm, in order to fully impregnate the latter, a process of artificial fertilisation which has continued down to the present day. The

symbolical nature of these representations of the 'tree of life' led to their repetition again and again through successive ages, and their adoption by other races. Modifications in the details and the increasing conventionalisation of the design for ornamental uses tended to obscure its meaning, until finally this became lost, the unity was broken up, and the winged figures became separated from the palm-tree, though they still continued to survive as distinct designs. From the palm a variety of patterns was developed in different parts of the world, amongst others the so-called 'honeysuckle' or 'palmette' in Greek art; while to the winged figures may be traced, through a long genealogical succession, the winged genii of Greek, Etruscan, and Roman art, and the angels of Christianity. The two separated portions of the old design might meet again in some accidental association, but it would be without any sign of recognition. To quote the concluding words of Dr. Tylor's paper: 'It is curious to see sometimes on a church wall the honeysuckle pattern bordering a space round sculptured angels, and to remember how far off and how long ago it was that the ancestor of the angel tended the ancestor of the plant.'1

¹ The views advanced by Dr. Tylor regarding these designs are combated by W. H. Goodyear in his very fine work on the 'Grammar of the Lotus;' but this question need not be discussed here, and at any

It is perhaps curious that designs having a sacred or symbolic significance should have so great a tendency to vary from the original conception. It might be supposed that these at least would survive unaltered, and be so preserved as to convey their meaning as fully as possible. They have, however, been subjected to much the same processes as other more purely æsthetic designs of less serious import, which might well be expected to be somewhat unstable, as their retention, or suppression, could not be a matter of great intrinsic importance. meaning of a symbolic design is apt to outlive the realism of the design itself, and, after the representation has become so modified as to cease to convey per se the idea to illustrate which it was created, the significance remains as an heritage to the design in all its disguises. It is handed down by tradition from generation to generation, till at length it too perhaps succumbs, and may be altogether lost, while the now purely fanciful remains of the design, if this has not completely vanished, as sometimes happens. continues its career of metamorphosis unfettered by tradition which would assign to it an importance which it has failed itself to maintain.1

rate Dr. Tylor makes out a strong case for palm versus lotus, though very probably the two designs may have influenced each other.

¹ I refer in the Appendix to most interesting papers by C. H. Read and Hjalmar Stolpe upon symbolic designs in Polynesia; the two very

It is impossible to estimate how many of the decorative designs with which we are surrounded, and which we are accustomed to regard as mere ornamental patterns, could be traced, were the material forthcoming, to originals having a definite significance, it may be one of sacred import, to the minds of those for whose benefit they were designed. Symbols of the various religious beliefs and institutions of Man in his different stages of culture have been repeated again and again, ever with an increasing tendency to vary from the original, have been transmitted from one people to another, till all semblance to the original and all knowledge of its significance have vanished. The meaningless and fanciful pattern which is the net result of all this continues, partly from the force of habit, to be applied to æsthetic purposes, and may frequently become, as decoration, associated with an object to which the original design would have been singularly inappropriate.

In spite of this ever present tendency to vary accepted designs, and the many causes which produce changes, one of the prominent characteristics of savage art is the persistent manner in which certain *types* of designs or themes are adhered to; the conservative nature of the mind of the savage is well exemplified in his art of decoration.

similar pieces of work were produced independently, and almost simultaneously.

In the application, accordingly, of the art of decorative design, certain types are for the most part adhered to; and, however numerous may be the variations, these will be found usually referable to a few 'root' designs, so to speak, which are characteristic of the particular region. It will also be noticed, as a general rule, that objects of the same class are decorated with the same kind of ornament, which, while varying in detail in nearly every example, will continue the same in fundamental idea from generation to generation. Thus, the complete transformation of designs by the processes of gradual variation is to a great extent kept in check by this inherent tendency to preserve 'fashionable' ideas, which thus becomes an 'escapement' to govern the impulse of the thirst for change.

In the treatment of these favourite themes each savage people develops its own peculiar style, or what we may call its 'school,' and on this account it is very usually possible to decide the locality whence an object has come, with no other data to direct one than the character of the ornamentation. In S.E. New Guinea art we find the human- and bird-form repeated in endless variations, singly or in groups, in many cases apparently mere scrolls, but nevertheless referable to one or other of the fundamental themes. In the Solomon group the frigate bird is very

constant, also associated with representations of the human form. The Maori of New Zealand adopts grotesques of the human face and body as his principal theme; and, in the often extremely elaborate scroll-work which adorns weapons and other objects from that country, we may frequently trace the outlines of features, or the marks representing the tattooing of the face which supplied originally the motive upon which to 'ring the changes.' In Polynesia for the most part elaborate geometrical patterns obtain, produced often with a degree of skill that is perfectly surprising, when we consider the condition of general culture and the primitive tools with which the results have been arrived at.

In the art of civilised peoples the same is to be seen, only here the complexity is very much increased by the far greater number of influences at work, and by frequent intercommunication.

In the case of migrations of tribes the character of the art of the mother country survives for a long time, and decorative art may sometimes afford a valuable clew in study of the affinities of races.

It must at the same time be admitted that similar causes have frequently produced similar results in widely separated portions of the globe, and in decorative art, as in many other arts, we occasionally find a very striking resemblance between ideas

which appear to have been quite independently invented.

Among the very many external influences which act upon designs and upset their stability, one of the most constant is that of one design over another. This may be in many cases merely the application of the more decorative characteristics of one design to give increased effect to another, which is perhaps itself lacking in this respect. Frequently, however, this interchange of characteristics would appear less purposeful, as it is difficult to see that anything is gained thereby. The association of ideas is often somewhat strained; but in the constant repetition of two designs side by side, they may act and react upon one another, force of habit being a prime factor in the process. I have already said that in the art of the Solomon Islands representations of the human form, grotesques for the most part, form a very frequent theme. In these carvings a very constant feature is extreme 'prognathism,' the lower portion of the face being represented as protruding in a very 'simian ancestral' manner, forming in fact a prolonged muzzle or snout, which is by no means characteristic of the natives themselves.

It is a gross libel upon the features of the people, and its raison d'être is not clear at first sight. It has struck me, however, that in this we see a remarkable

case of the influence of one design over another, and I think this can be borne out by the use of a few examples. I give here (Fig. 25) a sketch of one of the little wooden 'gods,' which are nearly always affixed to the stems of the sea-going Solomon Islands canoes, as charms against bad weather. The carving represents a grotesque head and arms



Fig. 25.—Canoe Fetich, Solomon Islands. (Pitt Rivers Collection.)

of a human figure, and it will be at once noticed that, seen in profile, it exhibits this unnatural prognathism in a marked degree. Now, in constant association with these human-form designs, and especially so on the decorated canoes of these islands, we find representations, more or less conventionalised, of the frigate bird, which is held sacred

by the natives, and which is the subject for ornament most commonly met with throughout the group. The characteristic long-hooked beak is usually well marked in the representations of the bird, and it would appear that the profile of the bird has exerted a strong influence in modifying that in the representations of the human face. If this influence cannot be absolutely proved by a comparison of the two designs as they occur independently of one another, all doubt

is, I think, set at rest by two specimens of canoe charms from Rubiana Island, which are in the British Museum. In the one (Fig. 26), we see a



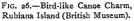




Fig. 27.—Human-headed Bird, Canoe Charm, Rubiana Island (British Museum).

likeness, somewhat fanciful, it is true, of the frigate bird, with its long projecting beak, hooked at the end; in the other (Fig. 27), the body and wings of the bird surmounted with a human head, which very closely resembles that shown in Fig. 25. It has the characteristic 'cap' at the top of the head, representing the hair, which is sometimes further indicated by the insertion of a number of little burrs, giving the effect of frizzled curls. But, while the head is undoubtedly intended to be human, the avian character is borne out in the much drawn out 'snout,' which suggests the beak of the bird. Thus the two ideas become intimately associated, and the one design acts upon the other; the function of both is the same, both are charms against canoewreck, and their prophylactic properties no doubt

remain equally effective whether their form be that of a human-headed bird or a bird-headed human figure. One could easily multiply instances, both from savage and civilised art, of similar influence of one design in modifying another, but the single example which I have given will suffice for an illustration.

It frequently happens when a design is repeated, so that two or more are brought into juxtaposition and symmetrically disposed with regard to one another, that an entirely new idea is produced, suggesting a new 'theme' for use as ornament, which may then continue to develop and be modified upon lines different from those suggested by the design before it became thus reduplicated.

For an example, our human and bird designs will again serve; examining this time those which are characteristic of the S.E. of New Guinea and the neighbouring islands. The bird may be an albatross, or possibly the frigate bird again, but I am not aware that it has been as yet identified from the usually very conventional representations, but this is comparatively unimportant for our purpose. One of the rather less fanciful figures of this bird is here shown (Fig. 28a), and also one of the scrolled figures, derived from this 'theme' (Fig. 28b), very characteristic of the region. In it may be recognised the eye,

with three concentric lines forming the head, produced to form the long beak, which is hooked at the end. The short lines above the beak are added merely for the purpose of 'filling in' the pattern, in

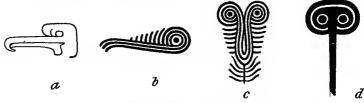


Fig. 28.-Bird Designs, New Guinea.

order that the surface may be more uniformly covered with carving; they are fragmentary repetitions of the lines of the head and follow the same curve. The effect produced by a pair of these bird profiles, when placed together in bilateral symmetry (viewed vertically), is that of a grotesque full-face figure, with two eyes, and a long tumescent nose depending from them (Fig. 28c). It is, perhaps, hard upon our species to say that a figure of this kind even suggests a human face, but it would, nevertheless, appear that the Papuan artist did not deny the soft impeachment, but, accepting the inevitable, in some cases improved upon the accidental resemblance by adding a few touches to increase the realistic effect; and a great number of modifications of this 'human face' design have been produced for the embellishment of clubs, limespoons, and other objects. In some cases the pattern becomes more elaborate, while in others, as in Fig. 28 d, a coalescence of some of the lines simplifies the design. A small volume could be written upon the variations undergone by these 'bird' patterns and their descendants, but these will suffice for my present purpose.

In the decoration of objects useful in the everyday life of savages-such as weapons, tools, and the like—as the ornamentation has, in its earlier stages at least, been often necessarily influenced, if not directly suggested, by the form or function of the object, it is usually admirably adapted to the latter. We thus find a true balance of ornament and useful form, very pleasing to the eye, and suggesting considerable artistic taste on the part of the lowly cultured artists. Not only do we find this to be very generally the case with the decorated implements, but it also holds good in the case of the beautiful designs often tattooed upon different portions of the body, which reach such a pitch of artistic excellence amongst the Maories of New Zealand, the Marquesans, the Tahitians. Here we see excellent examples of the harmony of ornament with natural contour; the tattooed lines seem to 'express' the natural features. and, while this form of personal decoration hardly commends itself to the more highly civilised, we still cannot but admire the good taste which prompts the native artist in his difficult task. In another way the elaborate tattooing of the body commends itself favourably to the critical eye of civilisation; it is said to be an excellent substitute for clothes, taking away from the effect of the nakedness, so abhorrent to conventionalised culturedom, in a manner that would soften the heart of 'British Matron' herself, and banish the sometimes obtrusive blush of Modesty.

The proper adaptation of ornament to necessary functional outline, as subordinate to the usefulness of the object, is a fundamental principle which is frequently lost sight of even in the most finished works of periods of decline or 'false' art, as we may see in many instances of modern pottery and porcelain, and other objects whose potential usefulness is, or appears to be, seriously impaired by the encroachments of ill-adapted ornament.

While, in the decoration of useful objects by savage artists, we find to a very great extent a true balance of ornament and form, we must, per contra, admit that, frequently associated with, and resulting from, very elaborate decoration is the degeneration of the utility of the implement. That is to say, among those savage races which are much addicted to elaborate fanciful decorations, the application of such ornamentation to useful objects is

frequently carried so far, as to render them unfit for use, and they thus become mere ceremonial or processional emblems. A good instance in point is

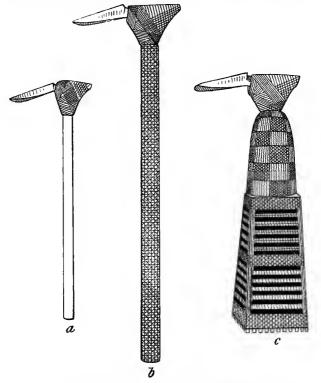


Fig. 29.—Ceremonial Adzes, Hervey Islands.
(a Ashmolean Collection) & Pitt Rivers Collection) & Oxford University Museum) furnished by the ceremonial stone-bladed adzes of the Hervey Islands in Polynesia. That which is figured

in Fig. 29 a is an example of the functional prototype of the ceremonial forms. The blade of black basalt is fixed into a large head, and carefully bound round with 'sinnet'; the handle is slender and rounded, and one which can easily be grasped in the hands for use as a tool in canoe-building or other wood-work. The second example, Fig. 29 b, is one in which the handle has been made of considerable thickness, and has been elaborately carved in a fine lacework of geometrical design. This handle is rounded, as in the last, but is far too thick to be conveniently grasped for work, and, moreover, its great size causes the weight of the head to be over-balanced, so that this specimen is clumsy and ill adapted for use as an adze. It is purely a ceremonial emblem. In the third example, Fig. 29 c, a further elaboration of the handle is seen. It is too large to be grasped by the hands, but the increased space thus acquired forms a vehicle for elaborate decoration in most intricate and cleverly conceived patterns, by which the ornamental effect of the implement is greatly increased, though at the expense of utility. In all, the head and blade remain practically the same, and, although rendered useless by the abnormal growth of the handle, they serve to maintain the symbolic meaning of the ceremonial implement, or emblem of authority. A parallel case is seen in the development of our own civic and state maces. In these the end which was originally the handle end has now become the 'clubbed' end, through the small crown, which originally embellished the handle, having gradually developed into the enormous head so characteristic of the modern ceremonial mace; the two ends have changed places, and the sometime 'business' end is now the smaller.

Before proceeding to discuss the natural history of decorative art from another point of view, it may be well to recall, by means of a brief synoptical table, the main points connected with the evolution of this art, as illustrated in the preceding pages. The chief stages, following the first appreciation of peculiarities or ornamental effects, either natural or produced as accidents in manufacture, may be summed up as follows:—

- I. ADAPTIVE:—The appreciation of curious or decorative effects occurring in nature or as accidents in manufacture, and the slight increasing of the same by artificial means in order to augment their peculiar character or enhance their value as ornament.
- II. CREATIVE:—The artificial production of *similar* effects where these do not occur; imitation or copying.
 - III. VARIATIVE:—Gradual metamorphosis of designs by—

- (a) Unconscious Variation, in which the changes are not intentional, but are due to want of skill or careless copying, difficulty of material, or reproducing from memory.
- (b) Conscious Variation, in which the changes are intentional, and may be made to serve some useful purpose (e.g. marks of ownership), or to increase an ornamental effect; to emphasise some specially important feature in a symbolic design; to adapt the same design to a variety of objects or spaces; by the development of a new idea from the modification of a pre-existing design; etc.

The effects of 'successive copying' are paramount in creating variations upon established designs whether unconsciously or consciously.

Conscious and unconscious variation frequently, usually in fact, act together, the changes being hastened by an association of unskilful copying and a desire to vary.

SCULPTURE AND DELINEATION, or designs in the round, and designs on the flat.

In studying the origin and characteristics of primitive art it is necessary to separate sculpture, solid or

plastic representation, from graphic representation, or delineation, although the two forms, especially in their early history, are so closely allied, the one being the parent of the other. As Mr. John Collier, in his Primer of Art, has pointed out, it seems probable that sculpture was the earliest means employed for artificially representing such natural objects as animals, the human form, etc., graphic design applied to flat surfaces being of later growth. Archæology does not materially help to elucidate this point, for, as I have already pointed out, the most ancient examples of the art of design which have been left us as a legacy by Time, prove that at the time when they were produced, during the 'Cave Period,' the art had already reached a high state of development, and that sculpture and graphic art already existed side by side. We can hardly, even in our most sanguine moments, hope ever to acquire a true chronological series to illustrate the actual history of art, which shall establish beyond a doubt the manner in which its different methods arose. Our line of reasoning must take a different direction.

Man, probably long before the art of decoration entered into the category of his accomplishments, had already evolved the art of fashioning the forms of his implements in various materials, and was therefore well acquainted with the working of rough materials

into desired shapes. His standard of excellence was no doubt a low one, but experience, gradually accumulated during long ages, had given him considerable control over difficult materials, enabling him to produce desired results in the shaping of his tools. It is, moreover, certain that to the uneducated eye a solid object representing some familiar thing, appeals far more readily than an outline drawing of the same, as the latter leaves so much more to the imagination, and requires, therefore, a greater intellectual effort for its appreciation. We must suppose then that the birth of realistic art took place when man's attention was first drawn to the accidental resemblance of some natural or artificial object to some well-known form, such as that of some familiar animal. I have already pointed out that there is far more reason for believing that art owes its absolute origin to accident in this manner than that it is the direct outcome of the intelligence, the application of matured reasoning.

As in the case of the simple nature-suggested pattern on the boomerang mentioned above (p. 18) the next step, viz., the application of artificial means in order to increase the effect of this accidental resemblance, followed quickly upon the first appreciation of it. The addition, for example, of an eye to an object whose form already accidentally suggests

an animal's head, or a few touches added to such projecting portions as resemble legs, are simple and obvious improvements, involving but slight intellectual efforts. In human activity there has always been, and it can be traced far back in the animal kingdom a surplus store of energy, in excess of that required for the mere providing for the maintenance of life, and this latent vigour in primitive man no doubt found a ready employment in these early attempts in the aesthetic arts.

The carrying a little further of the use of artificial means to increase an accidental resemblance would in time have suggested that the whole animal might be represented by carving; and that, therefore, any substance easy to work could be fashioned into the desired shape, and made to resemble animals and other objects. Thus the art of carving figures grew up from the simplest beginnings, through the 'appreciative,' adaptive,' and 'creative' stages, passing almost insensibly from one to the other.

We see traces of this piece of history in modern savage culture. Savages are devout Nature-worshippers, and to them the 'freaks' of Nature appear to be full of mystic meaning. They are the abodes, temporary or permanent, of the immaterial, supernatural beings or powers of the spiritual world, which have power to do good or evil, to lend assistance to

man or to hinder him, according to their individual propensities. With proper attention the helping powers may be enlisted, or the influence of bad spirits averted. Tradition or experience teaches the savage that certain spirits have a special affinity for particular objects, and, by judiciously placing these objects about, it is supposed that the propitious powers will be attracted into the neighbourhood of those which they particularly affect, and so will shed the light of their benevolence around this spot; while, per contra, other objects equally attractive to the powers of evil, and affording an abode after their own heart, will prove irresistible to them; and so, by enticing them to these centres the range of their malevolent influence is narrowed, much as we, by placing seductive and adhesive flypapers about, limit the sphere of operations of the otherwise ubiquitous buzzing fly.

Associated with the 'animistic' ideas, which form the basis of savage religion, is the doctrine which teaches that there is a close relationship, a physical sympathy, between the material body and its image, be this latter in the form of dream manifestations, reflection, or shadow. Similarly, in accordance with this doctrine, an image modelled or drawn by man, in likeness of some other animate object, can be acted upon so as to produce a similar effect in the original of the likeness. The possessor of such an image can

exercise control over the original, and so it is that we see primitive hunters providing themselves with charms for success, in the shape of figures of the object of pursuit. This doctrine gave rise to the use of waxen images with which lives were supposed to be 'spelled' away in the Middle Ages, and later to the terrible 'corp creidh' of Scotland, which has continued in use to the present day, and to numberless other instruments for working magic spells, acting by 'analogy' or 'sympathetic magic.'

From this it will be readily understood that any real or fancied accidental resemblance in natural objects to some well-known form, such as that especially of an animal or human being, is readily appreciated and made use of, and may even cause the object whose form suggests the resemblance to be regarded in the light of a 'fetich,' endowed with mysterious power. It is conceivable that nature - supplied 'fetiches' would be held in higher esteem than those which have been made by the hands of man.

The Lapps, previous to their conversion to Christianity, were wont to make offerings to such natural objects as tree-stumps or boulders, whose natural form suggested some real, or more often fancied, resemblance to objects connected with their primitive religion, the human form being the chief of these.

A very good instance of the value put upon these

natural forms which simulate other objects, is afforded by the very curious two-hooked seed-capsules of *Martynia* (a genus of Pedaliaceæ).

In the Shan States, Burma, these are valued as charms against the effects of snake-bite, and the reason is not far to seek. The curious and characteristic pair of curved hooks, whose function is the

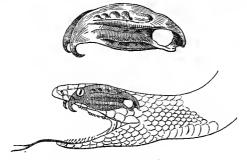


Fig. 30.-Seed Capsule of Martynia.

dispersal of the seeds, bear a strong resemblance to the two poison-fangs of a venomous snake, the body of the capsule suggesting the flattened reptilian head, Fig. 30. By analogy therefore these, in the estimation of the primitive folk, must be effective as antidotes to snake poison, and as such they are used, being applied to the wound, when the poison is supposed to be neutralised, or perhaps rather, we

¹ I am not aware of this fact having been recorded before; the specimens of these charms which I have received came from Mr. H. E. Leveson, resident in the Shan States, to whom I am therefore indebted.

should say, the spirit of the poison is attracted into the receptacle which so strongly resembles its original 'natural quarters' in the living reptile.

A similar case occurs in the 'snake-nut' (Ophio-caryon serpentinum being its scientific name, a botanical bilingual redundancy which forces the peculiar character of the fruit upon our notice), the fruit of a tree allied to the horse-chestnut, native of Demerara. When opened, the kernel is seen to bear a striking resemblance to a small coiled-up snake, with head, mouth, and eyes so well shown that it is difficult to believe that it is not made by human hands in imitation of a snake. The earlier colonists were much struck with the resemblance, and it was supposed that this nut might, by reason of this peculiarity, prove an antidote to snake poison.¹

The ginseng root, so largely cultivated in Corea and China for its medicinal properties, was formerly valued more or less according to its greater or less resemblance to the human form, these roots having a tendency to assume shapes, in which, with a slight stretch of imagination, could be seen the outline of a man, and special virtue was attributed to those roots in which the resemblance was most realistic.

These few examples, and their number could easily be increased tenfold, will suffice to show how ready

¹ Freaks and Marvels of Plant Life, by M. C. Cooke.

is the human mind to appreciate uncommon peculiarities occurring in nature, and from studying the modern savage, we must believe that primitive man entertained like feelings, and was glad to possess strange natural forms, particularly those resembling

men and animals, over whom he would thereby be able to exercise power. But these accidental resemblances, often extremely indifferent, and requiring for their appreciation a considerable stretch of imagination, would not long have satisfied him. He would very early have found that a few touches here and there would greatly increase the likeness and enhance the value of his talisman. I give a figure of a piece of stone, much weathered or water-worn, which bears some resemblance to the head, neck, and body of an animal (Fig. 31). The native of the Haida tribe of Queen Charlotte Island, who picked this up, thought that he saw a resemblance to a seal in this stone, but, not being



Fig. 31.—Stone Charm, Haida, Queen Charlotte Island. (University Museum, Oxford.)

quite satisfied, added lines to represent the eyes, mouth, and nostril, and so became possessed of a powerful charm to ensure success in his seal-hunting operations.

The root of the 'mandrake,' always surrounded with a halo of superstition on account of its frequent resemblance to the human form, is still greatly valued as a charm against misfortune in the East, as it has been till recently in our own country. The likeness, which is due to the root dividing into two below, with



drake, partly carved into human form, Asia Minor. (University Museum, Oxford.)

supplementary lateral radicles, is frequently aided by art, the living root being carved so as to further resemble a man or woman, with well-formed face and limbs (Fig. 32), and being subsequently allowed to go on growing for a while, is then traded off upon the confiding public as a curiosity in natural growth, with a corresponding endowment of supernatural potency.

and more use of artificial means for increasing natural effects, no doubt soon learnt that the whole Fig. 32.—Root of the Man- result could be produced by art and proceeded to make similar figures from materials whose form in no way suggested the lines upon which he should work. So he gradually emancipated himself from his

Primitive man, making more

mistress in art, Nature, and evolved the plastic art as applied to modelling figures, aided no doubt by his experience in shaping the implements which had long been necessary for maintaining his existence. There is no valid reason for believing that the art of carving or modelling was the outcome of a spontaneous ebullition of innate and hitherto suppressed artistic feeling. Though there is much in human nature to render possible the moderately rapid development of æsthetic tendencies, man is still subject to natural laws, and we must believe that his various arts have arisen, not by spasmodic bounds, but by easy stages from the simplest of beginnings in the school of Nature.

Most savages find pleasure, or often, as they believe, profit, in making realistic, or would-be realistic, models of animals and men, in a variety of materials, of which wood and clay are the chief. The former, doubtless, more often suggests in its varied growth a form which can be improved upon; while the latter, owing to its extremely plastic nature, is readily moulded into any desired shape, and lends itself to the purpose.

These models are frequently of the rudest description, and impose a somewhat severe strain upon the imagination; but, however rude and poorly executed they may be, the intention is that they shall be realistic, and the greater or less resemblance to

Nature is merely a question of skill. But lack of skill may of itself tend to alter the character of such designs. Imperfect realism readily degenerates into the grotesque, and this may partially account for the great prevalence of fanciful and grotesque representations of objects in the art of primitive races. Another reason for the great affinity for the fantastic in art is that under this form more or less *symbolic* designs may be made use of with highly decorative effect. The study of the grotesque is reduced to a science among the Maoris, natives of New Guinea, Haidas, and many other artistic though lowly cultured races.

Realistic art in carving may tend to become fanciful or conventional in other ways and for other reasons. When once the idea of carving representations of objects had been evolved and had become rooted, anything whose form and material was suitable for shaping into a figure would be liable to be so treated. The handle, for example, of some tool or weapon might offer a surface to which the carving of a portrait, say of some animal or part of an animal, might be applied. This is a step toward conventional carving. It is not necessary that the artist should intend to decorate the implement, though in some cases the figure may be added as a charm to increase the effectiveness of the weapon, if such it be; the primary idea is to create a portrait,

the secondary result is the decoration of the implement; although the design is in no way *modified* to serve as ornament. Fig. 33 is from a photograph of



FIG. 33.-Esquimaux Arrow-straightener of ivory. (Pitt Rivers Collection.)

an Esquimaux 'arrow-straightener' made of walrus ivory; in this the two ends have afforded convenient space for carving the heads of animals. The artist was satisfied to represent the heads alone, without the bodies, and these are intended to be accurate portraits, not distorted or modified in any way to suit the form of the implement, to which they are well adapted, or to heighten the ornamental effect. The left-hand head is that of a Polar bear, the right that of a young ruminant, probably a cariboo or musk-ox calf; each does credit to the skill of the primitive artist in working a hard material with indifferent tools.

The application of such carvings to useful objects leads to conventionalism in the representation from force of circumstances, by the sometimes necessary distortion of natural form or attitude, for the purpose of adapting the design to the object to be thus

embellished. The tool may not lend itself easily to a faithful life-study; and, in order not to impair the utility of the object, the decorative must be sub-ordinated to the practical form. The second example of Esquimaux 'arrow-straightener' (Fig. 34), carved

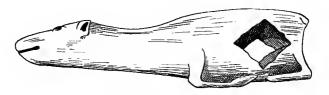


Fig. 34.—Western Esquimaux Arrow-straightener of mammoth ivory.

(Ethnological Museum, Berlin.)

so as to represent a polar bear, is a case in point. The artist was not satisfied with a carving of the head only; the *whole* animal is represented in the carving, and it is at once evident that it has been necessary to somewhat distort the animal's attitude, in order to adapt the figure to the necessary shape of the implement. The position is strained and unnatural, even allowing that it represents a recumbent attitude, although the general conception of the design is realistic. The carved handles of the horn daggers of the Cave Period, described above (Figs. 3 and 4), are parallel examples.

The designs at first in the development of ornamental carving no doubt were made as realistic as possible under the circumstances; but from this necessary and unavoidable distortion, suggesting of itself fantastic designs, frequently the idea of adhering as closely as possible to nature has been given up, and the realism has been sacrificed to ornamental effect, the improvement of which has often led to the original conception being completely reduced to a meaningless decoration or pattern, in which the idea of a real object is lost, though the decorative effect may very probably be increased.

Although circumstances may be changed, old associations are very tenacious and die hard, and

so it happens that in very many instances the artificial form of an object reflects the earlier history of the object, and gives us a clew to the antecedents even when examples of the earlier stages are not forthcoming. For instance, the little scoop-like instruments known as apple-gouges, were at first, as they frequently still are, made from



Fig. 35.—Apple-gouges of bone and wood. (Pitt Rivers Collection.)

the shank-bone (metacarpal) of a sheep, by simply cutting away a portion of the bone so as to produce

a gouge-like blade (Fig. 35a). Many of the later specimens are made of wood instead of bone, and although the carved ornament might assume almost any form, we find that the shape of the bone has been faithfully adhered to (Fig. 35b), and in the form of the upper end we recognise the expanded end of the bone with its two rounded and ridged articular surfaces, which were left in their natural state in the bone prototype. A large army of instances might easily be called up to show how, when a new material, admitting of entirely new designs, is substituted for that formerly employed, the shape imposed by the older material has been copied in the new. Thus in the successive changes by which we passed from Stone Age to Bronze, from Bronze to Iron, it may be remarked that the earlier bronze implements were modelled upon the forms of the later Stone Age, they in turn in their later development influencing the shape of the tools of iron, when that material was adopted to supersede the bronze. So too we find pottery vessels in ancient Greece and in modern Spain, of forms derived from the skin vessels that preceded them, the ἀσκίδιον mimicking the ἀσκός; or in various parts of the world we can trace in the shapes adopted in ceramic art, such prototypes as gourds, shells, vessels of bark, wood, basket-work, or other materials which performed

functions assumed by pottery on the introduction of the latter.¹

In connection with the art of sculpture I may give one more example to illustrate how a design, partially decorative, may suggest itself and become adopted.

Amongst the great variety of offensive weapons of savages, we frequently see clubs for the making of which small trees have been uprooted, the stems rounded to form handles, while the root ends have been trimmed to form the 'heads,' which are rendered the more formidable and business-like by leaving the stumps of the roots projecting as points or knobs on the surface.

Such a club is represented in Fig. 36a. The root-stumps are very irregularly disposed upon the head, and have merely been trimmed to the required shortness. A knotted club of this kind is usually associated with the figures of Hercules of classic sculpture. Fig. 36b is taken from another club in which the natural root-stumps are far more regularly and symmetrically disposed, being arranged

¹ The evolution of form in pottery vessels has been admirably treated of by Professors W. H. Holmes and Frank Cushing in the fourth Annual Report of the Bureau of Ethnology. Mr. Petrie, whose excavations in Egypt we watch with so much interest, writes to me that he has been able to trace in the form and decoration of many of the ancient Egyptian pottery vessels, their prototypes of skin, indicating a former nomadic life of the people.

in a radiate manner round the head. This symmetry was no doubt appreciated as giving a more finished and ornamental appearance to the weapon. It being found on trial that such a club was the more effective as a weapon for having the root-stumps remaining, other clubs not similarly provided with natural projections of this kind, have been furnished with them

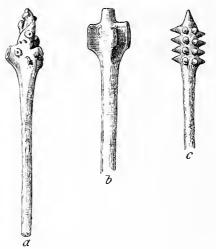


Fig. 36.—Knobbed clubs, Fiji and Australia.
(Pitt Rivers Collection.)

artificially, by carving projecting points upon the heads, in imitation of the root-stumps. In the more carefully made examples we find these knobs disposed far more regularly than would have been the case with natural growth, but they nevertheless show

clearly that the idea was derived directly from the stumps of roots, of which they are somewhat conventionalised imitations. A reference to Fig. $36\,c$ will make this clear; in this specimen there are six rows of points round the head. Clubs such as these were the forerunners of the terrible iron maces with which our scrupulous militant bishops formerly armed themselves in preference to swords, on the plea that they were not calculated to shed blood. A truly delightful piece of sophistry!

Here then a design suggested directly by nature has become perpetuated because of its obvious utility, while it has at the same time been modified in order to enhance its decorative value.

DELINEATION OR GRAPHIC ART.

Let us now turn to the consideration of the application of the art of design to flat surfaces, Graphic Art, as opposed to sculpture and modelling or Plastic Art. Mr. John Collier (*Primer of Art*) has pointed out that it is very possible, in fact probable, that the idea of representing objects by means of lines upon a flat surface, was in the first instance suggested by the supplementary slight touches, scratched lines, added to figures carved or modelled in complete relief, in order to express certain details which would not otherwise appear in

the process of giving the shape. The use of such lines to express certain of the less prominent features is extremely common, and, the greater the use of this method of giving expression, the less the need of representation in the solid or complete relief. Thus it may gradually have been suggested that the *whole* object could be by means of lines represented upon the flat.

The following example will serve to illustrate this point, although it in no way professes to be a strictly primitive example showing the actual transition, as the Esquimaux are well acquainted with the use of lines as a sole medium of expression. ivory button or 'toggle' (Fig. 37) has been ornamentally carved into the shape of a polar bear's head, of which the general outline is indicated by the shape produced. In order to express details which do not appear in the general conformation, incised lines have been used; the ear, eye, nostril, and mouth are thus represented, or, so to speak, sketched in on one side. The mouth might certainly have been carved out, but this would have involved far greater labour and skill. On the reverse a design representing a seal has been produced; the shape of the button, which is that of the bear's head, has been partly used to express the outline of the seal, the back and head being thus conveniently formed; but it has been necessary to express the outline of the

lower part of the body and the flippers by means of lines, as the shape of the piece does not suggest these. Were the shape still less adapted to this design, the whole seal would have to be represented by lines alone. Once the idea of graphic representation was acquired, the art could maintain an independent position, and continue to develop upon lines of its own, as new possibilities suggested themselves in rapid succession, keeping pace with the increasing scientific knowledge, and foreshadowing the perfection to which it was to attain.

Be this as it may, in all savage races, with very few exceptions, such as perhaps the Andamanese, we find the custom of drawing outline figures of men and animals, and other familiar objects, upon such surfaces as bark

7ic. 37.—Esquimaux ivory toggle on harpoon line. (Pitt Rivers Collection.

of trees, stones, and walls of caves. The designs are for the most part rude, and devoid of any

attempt at light and shade, as this branch of the art is hardly evidenced in the pictorial art of savage races. In these rough drawings, however, frequently employed for recording events and going by the name of 'pictographs,' must be found not only the ancestry of our own highly developed pictorial art, but also the dawn of the art of writing, which has passed through the various stages of picture, pictograph, hieroglyph, to phonetic and alphabetic characters or signs.

The use of colours is of extreme antiquity, and of its origin we have no record. Already in the 'Cave Period' their use is evidenced by the discovery of shells full of red hæmatite, or oxide of manganese, ground to a powder. It is by no means certain whether the pigments were used for painting pictures, or whether, as is very possible, they were merely employed for daubing over the bodies of the inhabitants of the caves. The custom of painting the body or face with a view to personal adornment is a very ancient one, and of world-wide distribution; it is very prevalent amongst the races of modern savages, and we may study its survival in a 'refined form' even in the most highly cultured nations of the globe. No doubt too the application of colours in decorative art is of great antiquity; all modern savage peoples appear to apply it to this purpose. The effect of colour applied to an object may well have accidentally suggested itself, in the accidental rubbing against natural colour-bearing substances, which would 'leave their mark' upon the object. Such natural colouring matters as red and yellow ochre, hæmatite, lime, charcoal, the juices of some plants, etc., are commonly used as pigments by even the lowest races, often mixed with fat or oil to make them adhere readily; and these must readily have suggested themselves for decorative use other than that of personal adornment.

Under the heading of 'flat' design, or Graphic Art, I include also bas relief, as I am inclined to follow Mr. John Collier and others in the belief that low relief has originally been in the main derived directly from plain incised design, by a process of deepening the incisions indicating outline and then rubbing down the interspaces until the surface of the latter lies below that of the design itself, which thus appears in relief; rather than from the art of sculpture by a process of flattening solid representations, that is to say, reducing complete to partial relief. In the treatment of bas relief, once produced in the manner which I have described, the methods adopted in sculpture were, no doubt, to a great extent brought into play. and thus, in the more highly finished examples, the edges of the designs may be rounded off, and the

surface modelled after the fashion of representations 'in the round.' The design, which is begun by the methods of graphic art, is finished by those of plastic art. This is practically the way in which sculptured bas relief is actually produced, as can readily be seen in wood-carving and stone work; and so in the 'embryology,' so to speak, of bas relief we see repeated the actual history of its evolution as an art, just as in the embryonic stages in the growth of an animal we see reflected the phases in the evolution of the species.

I have already described a simple way in which a primitive form of decoration, applied to a flat surface, has suggested itself when I drew attention (p. 18) to the boomerang with its natural knots painted black so as to throw them into greater prominence; and it is now my purpose to describe a pattern whose whole history lies bare before us; whose gradual development may be traced back through successive stages to its absolute origin, which we find in the artificial modification of a purely natural peculiarity.

Every one has been struck by the very beautiful decorative effect produced by the joints, or 'nodes,' occurring in regular succession upon reeds and bamboos. In their very constant use of these invaluable materials, the savage has duly appreciated their ornamental value, and many instances occur in which

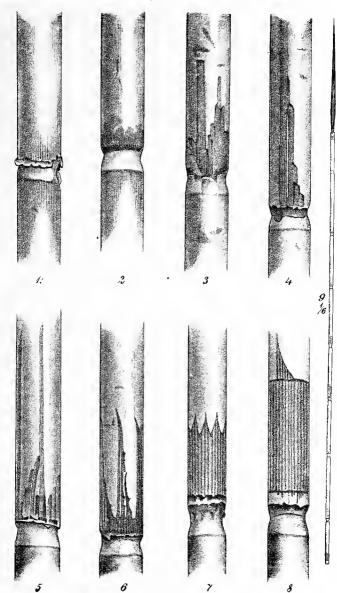


PLATE III.

the nodes of reeds or bamboos have been scraped so as to represent bands round the shafts of spears, arrows, and the like, and these bands are frequently picked out in black, red, or white. In Australia. New Guinea, Africa, and other regions, we find this form of quasi-natural decoration in common use. While examining a large number of Melanesian arrows I was recently able to trace the stages of evolution of a very characteristic form of ornamentation occurring upon the shafts of arrows from the Santa Cruz and Solomon Island groups, and to show how it originated in the trimming, for convenience in shooting, of the natural nodes of the reeds from which the shafts are made (Journ. Anthrop. Inst. xvii. p. 328 and Pl. VII.) Fig. 1 in Plate III. represents a node upon the shaft of an arrow, which has not been trimmed but has been left in its rough state. order to obviate the inconvenience caused in shooting by the roughness of the nodes which would rasp the thumb in passing rapidly over it, these were generally pared down so as to leave the whole surface smooth (Fig. 2). From the fibrous nature of the substance of the reed, there is always a tendency for narrow strips to peel away along the length of the shaft, when started by an incision, and when this happened cross

¹ The plate is here reproduced with the kind permission of the Council of the Anthropological Institute.

notches were cut to prevent the peeling going too far (Fig. 3); the result of this was a number of peeled lines of varying length forming a band around the node. Here was a suggestion for ornament. The removal of the smooth silicious exterior caused the peeled portions to become darkened with use, in the constant manipulation with hands not over clean, and the bands were thus thrown into greater contrast with the light yellow colour of the reed. By a more careful manipulation the length of these lines was controlled and varied at the will of the native, and two groups of graduated lines were formed, one on either side of the shaft (Fig. 4). A stage has here been reached at which a pattern has been created, whose sole function is to be ornamental, and this state is further marked in this specimen by the fact of these two groups of lines having ceased to be in connection with the actual node, commencing rather a trifle above it. The paring down of the node is performed here by a distinct process, similar to that seen in Fig. 2, extra care being taken against encroachment upon the pattern by peeling as before. At this stage, moreover, the pattern is purposely picked out in black colour. In Fig. 5 the groups of lines are seen to be somewhat modified and increased in number. Here again we find evidence of the pattern having completely lost its original significance and raison d'étre, as the nodes

in this specimen are still left in their natural rough state. Fig. 6 shows a further increase in the number of the groups of lines, which are now fine and incised, not scraped or peeled as before; the groups are roughly in shape elongated triangles. By a coalescence of the bases of these triangles the arrangement shown in Fig. 7 is arrived at. The design forms a complete band round the shaft, the apices alone of the groups remaining free. Complete fusion has taken place in Fig. 8, the whole band is filled in and no trace of grouping remains. In this specimen, above the band and resting on it, the design at a stage represented in Fig. 6 has been reintroduced, the upper encircling line of the band taking the place of the line of the node from which the design first sprang. Fig. 9 shows the whole of this last-mentioned arrow, and the distribution of the ornamental bands upon its shaft. In the series which I have given the more marked phases alone are figured, but, by taking a larger number of specimens, an almost complete series of gradations can be shown, illustrating in perfect continuity the succession of ideas, which has led from the appreciation of an ornamental effect, produced partly by nature, partly as an accident in manufacture, to the development of a peculiar and fanciful design, which can be varied at pleasure. The fact of all the stages mentioned being still in use in these islands, in the trimming and decorating of arrow shafts, does not in the least militate against their being regarded as representing the actual history of the more finished patterns; there is no reason why any of them should die out, even though they are being improved upon in the various districts, and they should be looked on in the light of survivals of early stages, and welcomed as such for their value as clews to the history of their more specialised offspring. If, as I have been given to understand, the patterns on these arrows in their many varied forms serve the purpose of marks of ownership, by enabling the native to identify his own arrows from a number, it is the more easy to understand how so many variations have arisen and continue to be called for, maintaining a high standard of artistic skill, which is so characteristic of the natives in question.

In an early portion of this essay I described and figured (p. 12, Fig 8) an ancient Danish dagger of flint, ornamented with a zigzag line chipped with consummate skill along the centre of the handle. Although a pattern produced in this manner cannot be said to belong strictly to graphic art, it is convenient to treat of it at this point. It seems to me very unlikely that the idea of adding an ornamental zigzag line at so much cost of labour arose spontaneously from a pure love of ornament. It is far easier

to believe that it was gradually led up to in the course of modification in the shape of the implement. This form of dagger, with its flattened handle, seems to have been derived from early forms, in which the handles, instead of being broad and flat, are square in transverse section. In these it is obvious that there are *four* edges to the handle, the surface view and transverse section being as represented in Fig. 38 a.

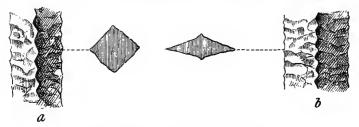


Fig. 38.—Portions of handles of Danish flint daggers.

Each of these edges is produced by careful chipping away of small flakes alternately from either side, so that each edge is in the form of a zigzag line. In examples in which the handle is slightly flattened, so as to produce a rhomboidal cross section (Fig. 38b), the four edges are still apparent, but two of them are sharp, while the other two are obtuse. The chipping process is just the same as before, and the alternate flaking of the obtuse edges stands out as a somewhat ornamental waving line along the centre of either surface of the flattened handle. The decorative effect

of the zigzag has caused it to be retained in the more finished examples of daggers with broad and quite flat handles, such as that figured in Fig. 8; in this only two edges occur as continuations of the edges of the blade, but along the centre of each flat side runs a zigzag line, very carefully chipped, though these are here purely ornamental, and no longer necessary for giving the form to the handle, but imposing rather extra labour without increasing the efficiency of the weapon as such, except perhaps as affording a roughened surface to the grasp, and so preventing slipping in the hand. In this case, then, a process of flaking, originally necessary for giving the desired form to the implement, has been retained as an ornamental effect under altered circumstances, which rendered this particular flaking no longer necessary.

Occasionally various objects used in the manufacture of different articles of use suggest a form of ornamentation, as when, for example, in the manufacture of coarse forms of pottery vessels, the plaited or twisted bindings, used for the purpose of keeping together the moist clay shape before baking, leave behind them in the baked vessel an imprint of their outlines. The regularity of the markings thus produced suggests of itself a simple though effective pattern, which has in many cases been adopted as such, and perpetuated and improved upon by other

means, after the use of the bands has died out by reason of improvement in the art of kneading the clay to greater consistency. In the two examples here given (Figs. 39 and 40), one an ancient British



F1G. 39.—Ancient British Urn of large size, from a tumulus, Guildford. (Pitt Rivers Collection.)



Fig. 40.—Clay Urn (modern) made by the Pueblo Indians of Zuñi, New Mexico.

urn of large size, the other a modern example from New Mexico, the strengthening bands have been reproduced upon the surface of the vessels in slight relief. This pattern, with the same apparent origin, is widely spread and has been independently evolved in different regions of the globe. If we betake ourselves to Africa we shall meet it there among some of the primitive examples of native hand-made pottery; in the East, again, it would likewise confront us.

An allied form of decoration upon vessels of pottery is that whose motive is an imitation of basket work, and also string work. Mr. Frank Cushing and Mr. Holmes, in the fourth Report of the Bureau of Ethnology, have shown how great has been the influence of basket work upon the ceramic art inits early stages, and the former 'leaves its mark' upon the latter not only in the shapes given by the potter to his vessels, but also in the surface ornamentation which he applies. The clay-lined basket suggests the superiority of clay over basketry for certain purposes, for cooking or for holding water, and the separation through use of the clay lining from the basket-work envelope presents the possibility of using vessels of pottery alone, although the advantage of moulding these in basket-work shapes has been fully recognised. But clay, when moulded in a moist state upon a basketry shape, takes the impression of the texture of the latter, and these are 'stereotyped' in the baking. As a result we get vessels of pottery whose surface is embellished with a regular and beautiful, though accidental, pattern which is an imprint of the basketry structure. Even where basket work has not been employed in the process of making a vessel of pottery, we may often see, in the finishing touches, the imitation of its former self-imprinted image, its effect as ornament having

readily been seized upon. The ornamental imprints of textiles, such as string work, weaving, and basketry, upon fictile wares, are not only interesting per se as examples of decoration whose history is clear, and whose presence often indicates the actual use of textile fabrics as supports in fashioning clay shapes, but Mr. Holmes has cleverly reproduced from the permanent clay negative impressions, the actual forms in positive of prehistoric North American textiles which had themselves long since perished, and which would otherwise have been lost to science.

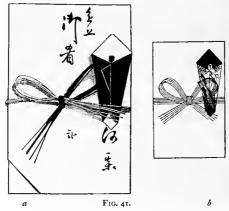
General Pitt Rivers has shown in his collection how the string work used for carrying gourd water-vessels is in the Sandwich Islands frequently *imitated* in colour upon the surface of gourds to which the string work is no longer added, a very beautiful design being thus derived. A most instructive series, too, in his collection, is one which shows conclusively how, upon ancient pottery vessels from Cyprus, the once realistic representation in colour of former cord supporting-bands has become, in the course of successive modifications, reduced to a purely conventional pattern, the later stages of which show no trace of the original design, and whose history can only be made manifest by means of a progressive series.

A parallel case is to be found near at home in the modern registered envelope, in which the blue crossed

lines added by the official pencil, or printed, represent the coloured string formerly used in order to secure the envelopes. It has become a mere symbol of a former actuality.

Similarly in Japan, I am told by Prof. B. H. Chamberlain, when a present is made by one person to another it is wrapped up and tied round with special red and white string in a special manner, and further a small folded paper containing a little piece of fish skin is inserted under the binding; this latter is a direct survival from times when gifts usually took the form of food, the fish skin being representative of a present of food, and as such it conveys in a symbolic manner the fact that the parcel so done up is for presentation, a gift from the sender. It has been found convenient in some cases, especially in presenting paper money, to have special wrappers or envelopes in which the binding and symbolic fish skin in its paper fold, instead of being actually added, are represented in colour printed upon the paper, their significance as symbols of presentation being conveyed equally well as in the case of the packets with real binding, etc. Fig. 41 a and b show two of these presentation wrappings, in the one the string binding and paper with fish skin are actually present, in the other they are merely represented in printing on the envelope made for a gift of paper money.

The influence of 'force of habit' is interesting as studied in the light of decorative art. It is with difficulty that we can rid our minds of the influence of previous associations of ideas, and we are extremely apt to retain 'for old associations' sake' objects or details whose raison d'être has, under altered circumstances, ceased. Why do civilised



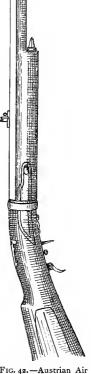
Japanese wrappers for presentations.

men adhere so tenaciously to the two isolated buttons on their coats in the region of the small of the back? Their original function was to enable the flaps or skirts of the long coats to be buttoned back in riding. But in the modern 'cut-away' coat, as the name implies, these troublesome flaps have been removed; while in the frock-coat in which the flaps remain, these are not provided with button-holes,

so that in this case the office of the two button-holes

is equally a sinecure. Their once useful and welcome presence has degenerated into a state of downright parasitism; and they seem to have established a freehold, persisting as though to taunt us with our unoriginality.

In graphic ornament we find somewhat similar instances of slavish adherence to custom. A typical দ্বী instance of this is the following. Some while back a regiment in the Austrian army was armed with airguns in place of the regular fire-arm, over which they had certain advantages (Fig. 42). In these air-guns the whole of the pneumatic apparatus is concealed within the stock, and consequently there is no need for any external lock or lock-plate. This was too radical a change in a weapon which simulated a fire-arm, and out of deference to 'old associations,' the outline of a lock-plate has been en- Fig. 42.—Austrian Air graved upon the weapon at the spot



gun (Pitt Rivers Collection).

where it would occur in the ordinary musket. The

lines are merely ornamental, and poor at that, and the outline is retained purely from force of habit; the eye is accustomed to seeing a lock-plate upon guns, and something would seem to be wanting, leaving an unfinished appearance, were it altogether absent, whereas, in point of fact, it is quite an incongruity as applied to an air-gun. It is curious, too, to find that this pattern has been applied to both sides of the gun, although in the ordinary single-barrelled fire-arm the lock-plate would exist on one side only.

When one material is substituted for another, and the shape of a useful object becomes altered in consequence, the earlier form of the object is frequently indicated in the lines which may be added for ornamental purposes to the new material. Andamanese afford a characteristic example of this. These natives make great use of the large bivalve pinna shells as food dishes or platters, each 'valve' of the shell forming a natural and very serviceable plate. These are pointed at one end, and broad and rounded at the other (Fig. 43 a). Wood has, however, been largely substituted for the purpose, and while the general shape of the shell has been retained, it has been found convenient to make both ends pointed, the points affording convenient handles by which to lift the dishes (Fig. 43 b). Although the shape is thus altered in some examples of the double pointed wooden dishes, embellished with ornamental lines in red wax, a curved line of the wax is added at *one* end (A, Fig. 43 b), to imitate the rounded end of the natural shell. It is not balanced at the other end with a similar line, and it is perfectly evident that it has been introduced to recall the outline of the shell, which had established a claim to be

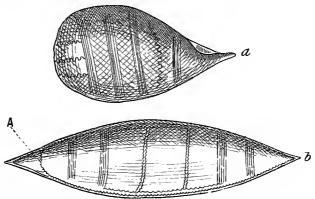


Fig. 43.—Andamanese Eating-dishes of shell and wood (Pitt Rivers Collection).

remembered by having discharged its functions in a creditable manner before the wooden copy was introduced.

Even imperfections or flaws in wood may be used as vehicles for ornament. We may often notice, for example, wooden clubs from the Solomon Islands in the grain of which cracks or flaws have occurred, and have been stopped up with wax or asphaltum



Into this wax there are sometimes set numerous little flat beads of shell, which form quite a pretty ornamentation. The primary idea has been to conceal the flaw as much as possible by filling it up with the . wax: but this wax is very commonly employed in decorative art as a matrix for such ornamentation as that afforded by these little shell beads, and so, partly apparently from force of habit, partly with the idea of turning to account even an imperfection, the beads have been fixed into the wax 'stopping' to form a peculiar asymmetrical pattern. The association of ideas is interesting. specimen shown in Fig. 44 exhibits a long flaw in the grain of the wood, a little to the right of the median line. This has been stopped with wax and set with beads as described.

In the production of designs the artist is often to a great extent at the mercy of his material, as very often a particular design which is perfectly

suited to one material cannot be exactly reproduced in another. This is especially noticeable in the textile art, which, by the geometrical construction of its products, imposes a rectangularisation of outline in designs which would by the ordinary graphic methods be formed with curved lines. This enforced geometricity of course varies according to the coarseness of the texture or mesh, as with very fine threads and close mesh curved lines may be very fairly suggested, and in life designs there may be some approximation towards realism. The influence of the necessary structure of the material upon the character of the designs with which it may be embellished is particularly well illustrated by the 'wampum' belts of the North American Indians.

The 'wampum,' as is well known, consists of small cylindrical shell beads of two colours. The one kind black, or to speak more correctly purple, wampum, is made from the dark portions of the 'quahaug,' known in the New York Market as the 'hard shell clam' (Venus mercenaria). The other, white wampum, is made chiefly from portions of the whelk and pyrula shells. The beads are all of a size, cylindrical, and drilled longitudinally. Strung together in strings, they formed one of the chief circulating media of the country. For forming them into the celebrated wampum belts they were threaded upon short lengths

of string, which were placed side by side, and then united by cross threads, the string work forming a regular warp and woof as in weaving. Belts of considerable size were thus produced, containing many thousands of beads. The beads being of two colours, rendered possible the production of patterns, sometimes in white upon a purple ground, sometimes the These designs were, however, something more than mere ornamental patterns; they were used as a means for preserving records of events, and so became 'documents' to which reference could be made upon matters of state importance, such as treaties and other transactions. The records were, so to speak, woven into the belts, or 'talked into' the patterns, which thus became and remained associated with particular events, and acted as reminders to those whose duty it was to interpret them on special occasions for the benefit of the rest. The office of keeper of the records, or 'master of the rolls,' was an important one, as upon the holders depended the proper preservation of official attestations. While the patterns were frequently conventional arrangements of the beads, requiring a considerable effort of memory for their interpretation, many of the designs partook of a more realistic character. In the celebrated 'Penn belt' two figures of men are introduced (Fig. 45; reproduced by kind permission from the

Bureau of Ethnology Report) in purple beads upon a white ground. The one figure represents an Indian, the other a European, distinguished by the possession of a hat and a somewhat robust figure; the two are represented with joined hands, symbolical of an Anglo-Indian treaty, and the evidence goes far towards proving that this belt actually commemorates the treaty concluded between the Indians and the founder

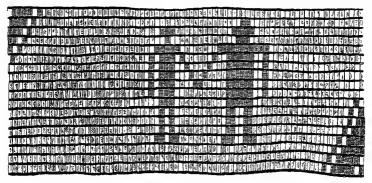


Fig. 45.-Portion of Wampum Belt, North America.

of Pennsylvania at Shackamaxon in 1682.¹ Be this as it may, that which particularly interests us here is the enforced conventionalisation of the figures due to the strictly rectilinear arrangement of the wampum beads. Continuous lines of beads can only run horizontally or vertically, and, in order to produce

¹ Holmes, Bureau of Ethnology Report, 1880-81, p. 253.

diagonal direction, broken lines have to be resorted to, as is well seen in the two arms which are extended to join hands in token of friendship.

Had the design been represented by drawing or painting, curved lines would have been resorted to, the rectilinear and rectangular severity of the design in wampum would have been avoided, and a nearer approach to realism would have resulted. In a magnificent Onondaga belt fifteen such figures are represented holding hands, and they are even more conventional in outline than those upon the 'Penn belt.'

Similar cases of restriction in the production of designs are to be found in basketry, and designs representing the human form almost identical with those of the wampum belts may be seen upon basket-work from California, Peru, and elsewhere. The beautiful baskets known as 'pegalls,' from British Guiana, are usually adorned with elaborate geometrical patterns created by the interweaving of the black and yellow strips of which they are made. These patterns at first sight appear to be all purely fanciful, but a careful examination of some of them reveals the fact that many of the designs are in reality representations of animals, frogs, snakes, deer, monkeys, birds, etc., their geometrical character being unavoidably imposed by the structural characteristics of

Holmes, Bureau of Ethnology Report, 1888, pp. 234-5.

the material. I give here two fairly striking examples, and in each case append a rough sketch in interpretation, in order to show the object which it was the intention of the artist to portray, so far as the material in which he was working would allow him.



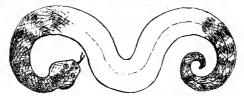


Fig. 46.—Portion of Basket with snake design, British Guiana (Oxford University Museum).

The first example (Fig. 46) shows a 'meander'-like pattern, one of a number arranged around the basket. It is readily seen, however, that the two ends of the figure differ from one another, the left-hand termination being large and somewhat

complex, while the right is indicative of a tapering extremity. When we take the figure and reproduce the outline on paper, softening the asperity of the rectangularity by substituting curved lines, we see at once that the object represented in these figures is a snake, not an altogether fanciful and generalised snake either, for the broad triangular head indicates that we are dealing with a poisonous species, a wholesome respect for whose powers of destruction perhaps constituted a claim for the frequent representation of the animal. As applied to basketry, the 'snake' figure is productive of a highly decorative effect, and in other examples we may see the persistence of the design in more purely fanciful forms resulting from the gradual suppression of the animal idea. In some of the baskets we see two 'snake' figures partly united by the fusion of the tails, so that a continuous fret pattern or 'meander' is produced round the basket, broken only at one point where the heads of the two snakes are still manifest and independent. In others, again, the heads are also suppressed, and the design forms a perfectly unbroken 'meander' round the basket, the squared 'serpentine' coils being alone suggestive of the origin of the design. This example well illustrates the form imposed in basketry of the 'double-loop-coil,' the squaring of the curved lines of the latter figure being unavoidable.

The animal portrayed in the second example (Fig. 47) is perhaps less manifest at first sight than in the last. Still, when we substitute curves for the rectangular lines of the figure, no doubt can remain in our minds that the object represented is a 'spider-monkey,' very probably the 'coaita' (Ateles paniscus),

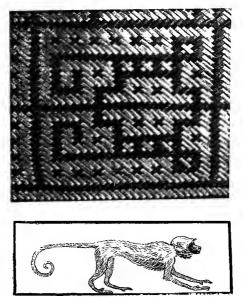


Fig. 47.—Portion of Basket with Monkey designs, British Guiana (Oxford University Museum).

a common and characteristic animal in Guiana. The form of the head, body, and limbs would by no means necessarily lead us to this conclusion. It is the tail

that betrays the spider-monkey. This organ, by a curious case of 'analogy' and 'meeting of extremes,' performs very much the same functions as the trunk of the elephant, being extremely sensitive at the extremity, and very prehensile. The characteristic coiled-up extremity of the long tail is well indicated in the necessarily conventional representations in the baskets, and supplies us with the clew to the interpretation of the design (see the sketch of a spidermonkey below the basket-work design). design two figures are brought together with the idea of symmetry, though we might almost suppose that the two together represented a monkey on the banks of a river, with its inverted reflection in the water below it. We need not, however, grasp at a shadow and attribute Narcissian propensities to this group of animals, nor imagine that the juxtaposition of the two figures was due to other aims on the part of the artist than a desire for a symmetrical disposal of his patterns.

The conventional representation of objects imposed by the nature of the material, which does not admit of realism, is equally manifest in the designs produced in weaving cloth, etc. The production of any but the simplest geometrical patterns in weaving is at all times difficult, and involves a considerable expenditure of skill and labour, and the tendency

for curves to become rectangles is very marked. The realistic representation of familiar objects is practically impossible, and we consequently find that designs which are suggested by nature, and are primarily would-be imitations of natural objects, become very fancifully treated, the impossibility of anything approaching accurate delineation giving a stimulus to improvement in the direction of purely decorative treatment of the design; the more æsthetic attributes are again and again selected at the expense of the symbolic effect. The degree to which distortion is enforced depends largely upon the fineness of the mesh or closeness of texture, as with the use of fine threads closely woven together some approach towards continuous curved lines can be effected, though great skill is required; while with coarse intersecting warp and woof the design cannot free itself from the unconcealable structural details, the sections of the threads as they appear on the surface being too obviously units, which can, in conjunction, form continuous lines only in a horizontal or a vertical direction, the diagonals being composed of broken lines in which the units are fully manifest, just as in the case of the wampum belts. Wherever attempts have been made to produce the forms of nature in weaving, we may see, to a greater or less degree, this enforced tendency towards conventionalisation and the substitution of straight lines for curves. The ornamented cloth from the old Peruvian graves affords many striking examples, and Messrs. Reiss and Stubel figure numerous specimens in their work on the Necropolis of Ancon. Here we see birds, beasts, and human figures innumerable, whose partly imposed grotesque forms have been readily accepted as valuable for decorative purposes, and altered in various ways till realistic or symbolic outline is practically entirely sacrificed to æsthetic effect. The substitution of conventional patterns for the crude and stiff bunches and garlands of flowers, which till recently adorned our English carpets, and were laboriously produced by misguided though painstaking ladies, in wool work for chairbacks and seats, is interesting as an instance of the transition from designs unsuited to the material to those well adapted to it.

The seemingly most complicated patterns are frequently nothing more than simple ones repeated over and over again in various geometrical combinations. As has been remarked by Owen Jones (Grammar of Ornament), the Fijian furnished with a simple wooden stamp, cut, say, in the form of a triangle or lozenge, can print upon his 'tapa' cloth a number of coloured triangles or diamonds, arranged in any order, which can be varied at pleasure, and

give rise to apparently complex geometrical patterns. In this manner a combination of simple elements can produce elaborate and complex results even in the hands of the least cultured.

The suggestion of *complex* forms of decorative art warns me that I should bring this essay to a close at this point. It is more particularly with the simplest forms of the art that I have had to deal, and I must leave the complex and the higher achievements of civilisation, the outcome of the accumulated experience of long ages of progress, to be unravelled by those who are better qualified than I to do so.

It has been my main object in this essay to point out the value of a proper study of art among the less cultured races of mankind, as bearing upon the question of the actual origin and growth of Decorative Art, and as throwing light upon a subject for the study of which Archæological evidence is per se very incomplete. From a study of the condition of Art as occurring especially amongst the less cultured modern races of mankind, though to a great extent also that of civilised peoples, we may at least arrive at some general conclusions as to the actual origin and growth of Decorative Art, and form our conjectures as to the dawnings of an art which has played so important a part in beautifying our surroundings, and in subduing the monotony of a

too matter-of-fact existence. The changes which we see taking place in the arts of the present day are but the magnified reflection of what has gone before during long ages. Especially do we see the truth of the time-honoured saying, 'NATURA ARTIS MAGISTRA;' and it may be said with truth that the alphabet of every art has been learnt in the school of Nature, while the grammar, too, is modelled upon her teaching. Appreciation, adaptation, and, lastly, creation, are stages in the development of an art from Nature's models, which follow one another in a natural sequence.

Art is not a thing of spontaneous origin, but of slow and gradual, though constant, growth, ever changing, with a tendency to advance from the simple to the complex; and, while we may study and compare its fluctuations in the past, and view the changes which it undergoes in the present, and speculate as to its beginnings, yet in nowise can we foretell what will be

THE END.

APPENDIX

I have thought it advisable to append a list of works bearing upon the subject of the growth of Decorative Art, in case the reader may care to pursue further a subject to which the present incomplete sketch can at the best be regarded as only an introduction. The list does not in any way pretend to be a complete one, but comprises a few of the works from a very scattered literature which are recommended to those who seek further and fuller information.

George Harris—'The Theory of the Arts,' 1869.

Owen Jones—'Grammar of Ornament,' 1878.

Brough Smyth—'Aborigines of Victoria,' i. pp. 238, 295.

John Collier-' Primer of Art,' 1882.

Reiss and Stubel—'The Necropolis of Ancon,' 1880-1887, especially plates 102, 103, 104.

W. H. Holmes—'Prehistoric Textiles of the United States derived from Impressions on Pottery,' Bureau of Ethnology, iii. p. 397, Washington.

'Art in Shell of the Ancient Americans,' Bureau of Ethnology, iii.

'Origin and Development of Form

- and Ornament in Ceramic Art,' ib. iv. p. 443, 1886.
- 'Ancient Art of the Province of Chiriqui,' ib. vi. p. 13, 1888.
 - A study of the Textile Art in its Relation to the Development of Form and Ornament,' *ib.* vi. p. 195.
- 'Textile Art in Prehistoric Archæology,' American Antiquarian, Sept. 1886.
- 'On the Evolution of Ornament,' American Anthropologist, 1890, p. 137.
- 'Studies in Aboriginal Decorative Art,' American Naturalist, v. pp. 67 and 149, 1892.
- F. H. Cushing—'A study of Pueblo Pottery,' Bureau of Ethnology, Rep. iv. 1883, p. 473.
- F. W. Putnam.— 'Conventionalism in Ancient American Art,' Bull. Essex Institute, Salem, xviii. p. 155.
 - J. S. Kingsley—'Conventionalism in Ancient American Art,' American Naturalist, 1887, p. 713.
 - H. Balfour—'Evolution of a Characteristic Pattern on the Shafts of Solomon Islands Arrows,' Journ. Anthropological Inst., xvii. p. 328, 1888.
 - C. H. Read—'Origin and Sacred Character of Certain Forms of Ornament in

- the S. E. Pacific,' ib. xxi. p. 139, 1891.
- H. Colley March—'The meaning of Ornament,' Trans.

 Lanc. and Cheshire Antiq. Soc.,
 1889.
 - Hjalmar Stolpe—' Utvecklings Företeelser i Naturfolkens Ornamentic,' Ymer, 1890, p. 193, Stockholm.
 - E. B. Tylor—'The Winged Figures of the Assyrian and other Ancient Monuments,' Proc. Soc. of Biblical Archæology, June 1890.
 - Lazare Popoff—'Origine de la Peinture,' Revue Scientifique, 27th Sept. 1890.
- W. Martin Conway—'Dawn of Art in the Ancient World,' 1891.
 - W. H. Goodyear-' Grammar of the Lotus,' 1891.
 - W. R. Lethaby—'Architecture, Mysticism, and Myth,' 1892.
 - A. C. Haddon will shortly publish a Memoir on the Art of British New Guinea, and a small book on 'Savage Art.'

